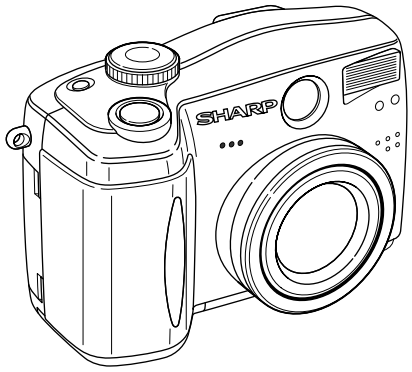
SHARP SERVICE MANUAL

S92Q8VE-CG30U

DIGITAL STILL CAMERA



MODELS VE-CG30U VE-CG40U

In the interests of user-safety (Required by safety regulations in some countries) the set should be resrored to its original condition and only parts identical to those specified be used.

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SHARP CORPORATION

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The contents are subject to change wthout notice.

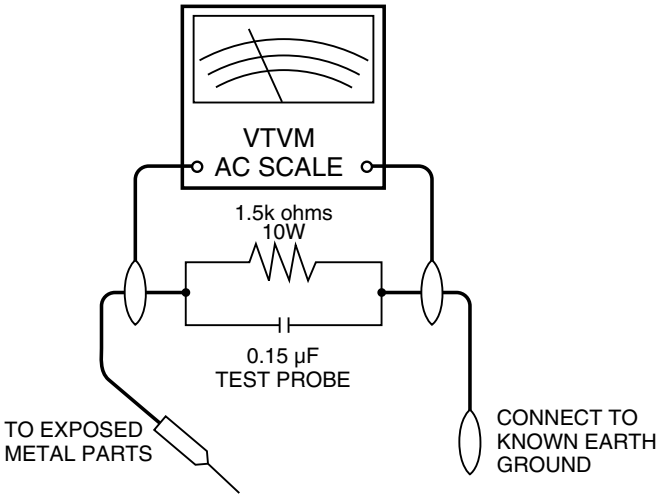
1. IMPORTANT SERVICE NOTES

BEFORE RETURNING THE VIDEO CAMERA RECORDER

Before returning the video camera recorder to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the video camera recorder.
2. Inspect all protective devices such as non-metallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor/capacitor networks, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.

· Plug the AC line cord directly into a 120 volt AC outlet (Do not use an isolation transformer for this test).
· Using two clip leads, connect a l.5k ohm, 10 watt resistor paralleled by a 0.15µF capacitor in series with all exposed metal cabinet parts and a known ground, such as a water pipe or conduit.
· Use a VTVM or VOM with 1000 ohm per volt, or higher sensitivity or measure the AC voltage drop across the resistor (See Diagram).
· Move the resistor connection to all exposed metal parts having a return path to the chassis (antenna connections, metal cabinet, screw heads, knobs and control shafts, etc.) and measure the AC voltage drop across the resistor. Reverse the AC plug (a non polarized adaptor plug must be used but only for the purpose of completing these checks) on the set and repeat the AC voltage measurements for each exposed metallic part. Any reading of 0.45V rms (this corresponds to 0.3mA rms AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the video camera recorder to the user.



■ PRECAUTIONS FOR USING LEAD-FREE SOLDER

1) Employing lead-free solder
"Main PWB", "Camera head PWB", "Audio I/O PWB", "Card PWB", "Inverter PWB", "Operation PWB", "DC Jack PWB", "CCD PWB" of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.

Example:

Sn-Ag-Cu

Indicates lead-free solder of tin, silver and copper

2) Using lead-free solder
When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.
As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40°C, we recommend you to use a dedicated soldering bit. If you are not familiar with how to obtain lead-free solder or soldering bit, contact our service station or service ranch in your area.

3) Soldering
As the melting point of lead-free solder (Sn-Ag-Cu) is 220°C which is higher than the conventional lead solder by 40°C, and as it has poor solderability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, since the land may be peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.
Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to turn on and off the power of the bit as required.
If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.
When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

Lead-free wire solder for servicing

Part No.	★	Description	Price Code
ZHNDAi123250E	J	ϕ0.3mm 250g(1roll)	BL
ZHNDAi126500E	J	ϕ0.6mm 500g(1roll)	BK
ZHNDAi12801KE	J	ϕ1.0mm 1kg(1roll)	BM

2. SPECIFICATIONS

Digital still camera

Image Capturing Device	1/1.8" CCD image sensor (effective pixels: 4.04 megapixels(CG40U) 3.2megapixels(CG30U))
Lens	F2.0-F2.5 f=7-21mm (35mm film equivalent: 33-99mm)
Power zoom	1-3x in optical range, 3-9x in digital range
Color Temperature Compensation	Auto white balance with daylight, fluorescent or tungsten
LCD monitor	1.5" CGSilicon, 134,000pixels
Power Source	AA size alkaline batteries Ni-MH rechageble batteries DC 6.0V with AC adapter
Power Consumption	3.2W (CG40U), 2.9W (CG30U)
Recording Format	JPEG for still images Motion JPEG for motion images (CG40U ONLY)
Recording Medium	SD Memory Card
Sound Recording Format	WAV (monaural) (CG40U ONLY)
Dimensions(W x H x D)	4.5" x 2.9" x 2.4" (113.5 x 74.5 x 60 mm)
Weight	0.64lbs (290 g)(CG40U)(without batteries, card, wrist strap, and lens cap) 0.63lbs (285 g)(CG30U)(without batteries, card, wrist strap, and lens cap)
Operating Temperature	32°F to 104°F (0°C to +40°C)
Storage Temperature	-4°F to 140°F (-20°C to +60°C)
Operating Humidity	30% to 80%

AC adapter

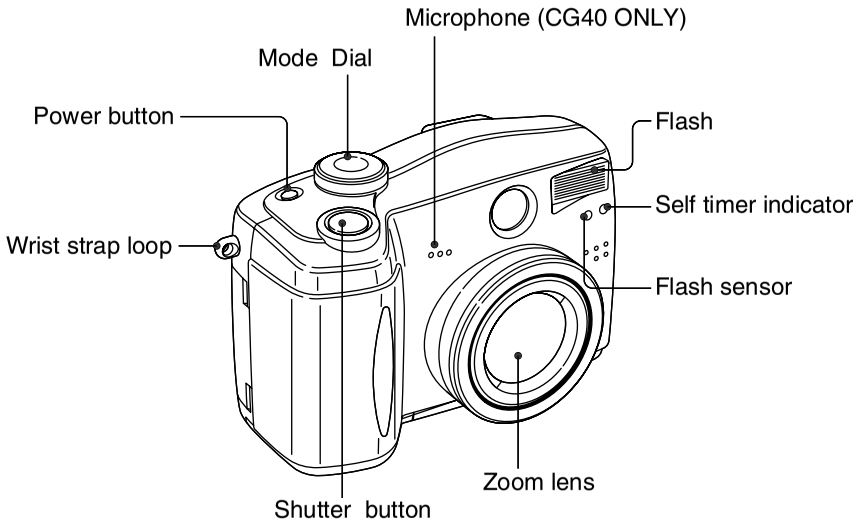
Power Requirement	AC 100-120V, 50/60Hz
DC Output	6V
Operating Temperature	32°F to 104°F (0°C to +40°C)
Dimetions (W x H x D)	2.0" x 1.1" x 2.6" (50.0 x 27.0 x 65.5 mm)
Weight	0.24 lbs (108g)

Specifications are sbject to change without notice.

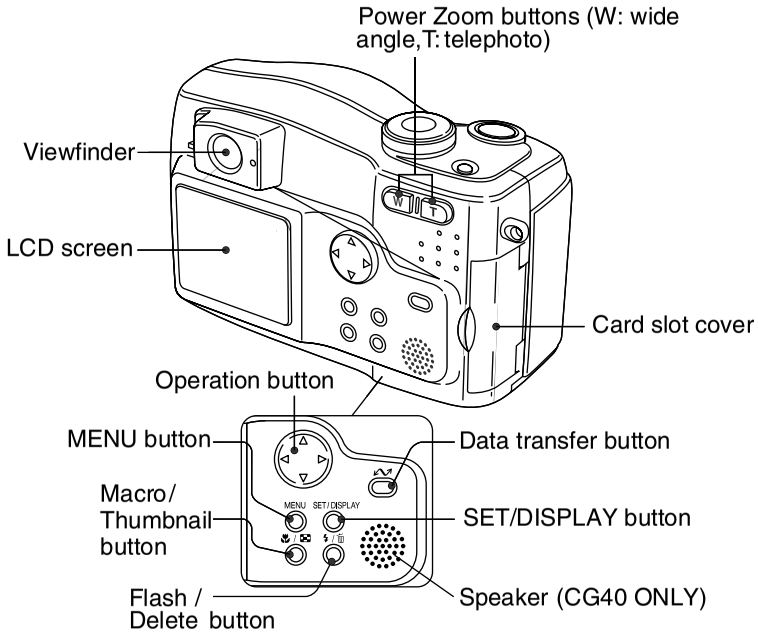
SERVICE INFOMATION (FOR THE U.S.)

For the location of the nearest Sharp Authorized Service Center, or to obtain product literature, accessories, supplies or customer assistance, please call 1-800-BE SHARP (1-800-237-4277) or visit SHARP's website (http://www.sharpusa.com).

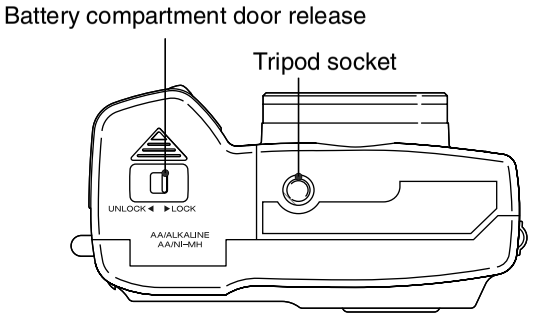
Front view

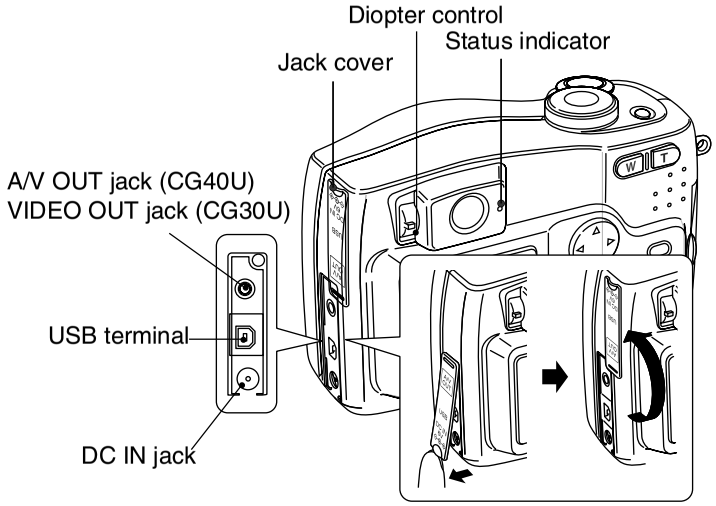


Rear view



Bottom view





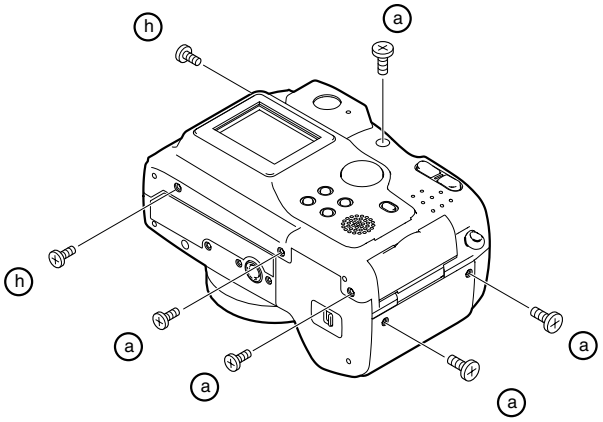
4. DISASSEMBLY OF THE SET

4-1. DISASSEMBLY OF THE SET

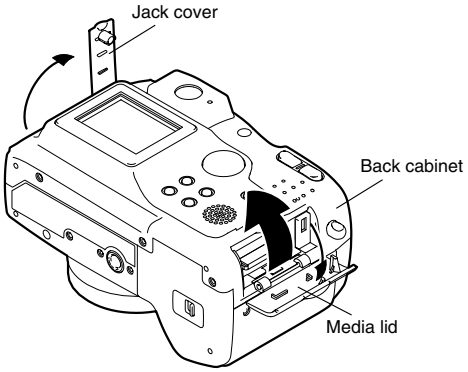
Note:

Before removing the cabinet, turn off the power supply, and ascertain that the battery have been removed.

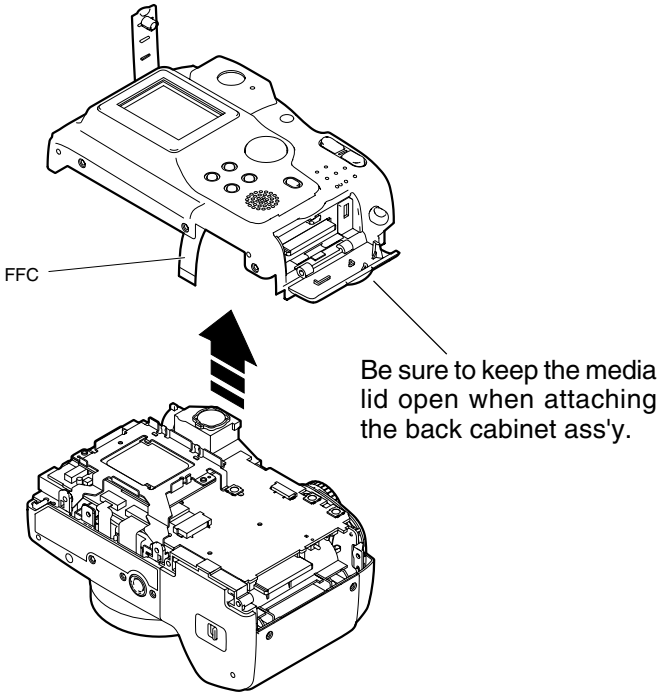
1. Remove the five screws ((a)LX-HZ0063TAFF) and two screws ((h)XiPSF17P04000).



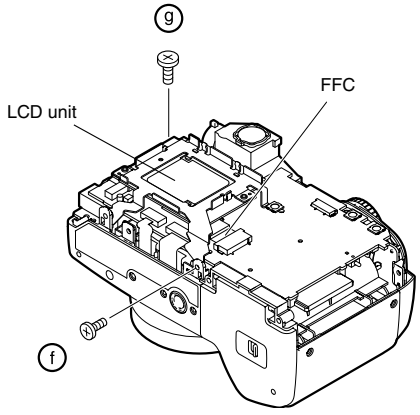
2. Open the media lid and jack cover, and then open the back cabinet turning it.



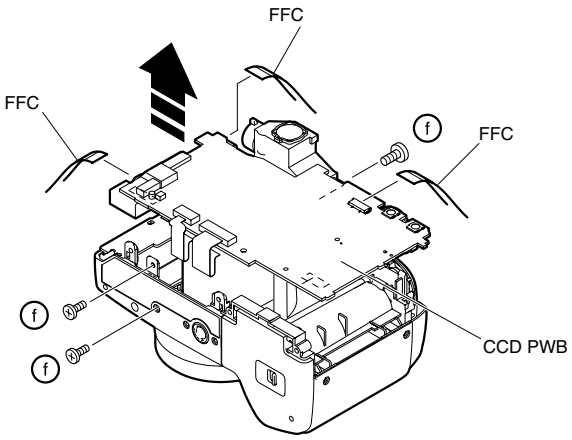
3. Disconnect the connector and pull out the FFC.



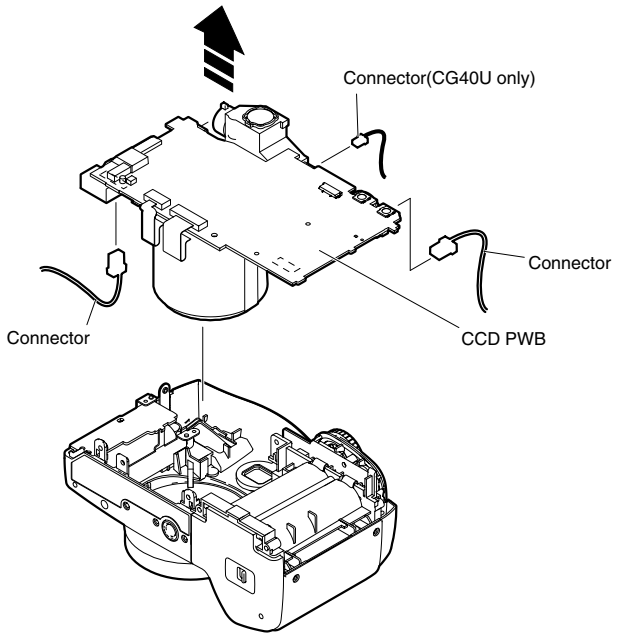
4. After removing the one screw ((f)XiPSF17P03000) and one screw ((g)XiPSN17P02000), disconnect the connector and pull out the FFC to take out the LCD unit.



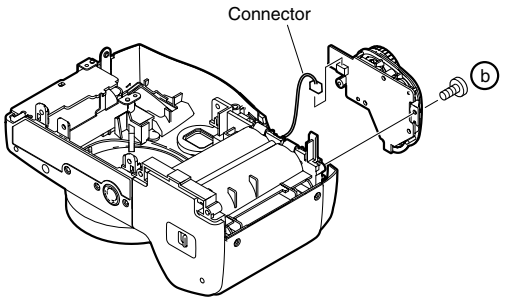
5. After removing the three screws ((f)XiPSF17P03000), disconnect the connector and pull out the three FFCs.
   Pull out the CCD PWB slightly.



6. Disconnect the two connectors to take out the CCD PWB.
   Each connector has four wires.
   (For 40U, disconnect the three connectors.)

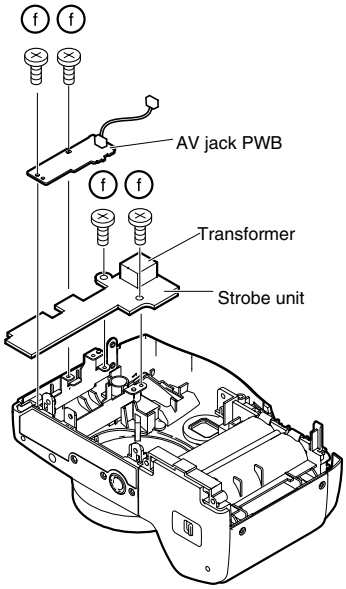


7. Remove the one screw ((b)LX-HZ0050TAFF) and disconnect the connector to take out the top cabinet.



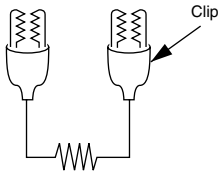
8. Remove the four screws ((f)XiPSF17P03000) to take out the AV jack PWB and strobe unit.

   Caution:
   Hold the transformer to remove the strobe unit.

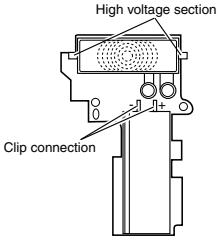


Caution: Electric shock

When disassembling or repairing the set, do not touch the high voltage section of the main capacitor since it contains high voltage. Be especially careful when removing and mounting the screws of the jack unit (DUNTKB359PM) and strobe unit as well as when replacing the wires (QCNW-A562/564/565WJ). After removing the strobe unit, prepare the following discharging jig (1) and connect it to the (2) position as shown in the figure. Discharge main capacitor by leaving discharge jig attached for 60 seconds.



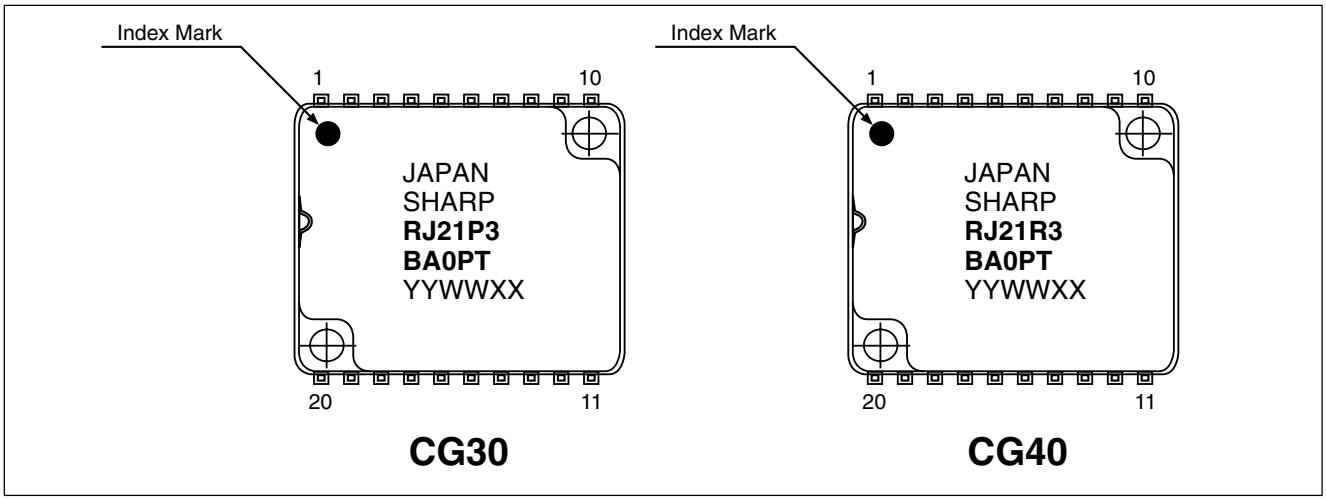
Prepare approx. 5kΩ/5W.
Figure 1



4-2. REPLACEMENT OF CCD SENSOR

4-2-1. BEFORE REPLACEMENT

1) The CCD image sensor is more sensitive to electrostatic breakage than C-MOS LSI.Therefore sufficient means to prevent electrostatic damage must be taken when it is replaced.
   • Ground the soldering iron.
   • Ground also the human body, using the wrist strap(through an 1 M ohm resistor).
   • Until the CCD sensor is mounted on the PWB, fit it to the conductive sponge, and short-circuit the foot lead.
2) Take utmost care so that the surface glass of CCD sensor and optical filter are not contaminated and damaged. If any contamination is found, for example fingerprint, wipe it off with silicon paper or clean chamois skin.
3) When replacing the CCD sensor, use the static electricity prevention grounded soldering-iron, and perform quickly soldering.

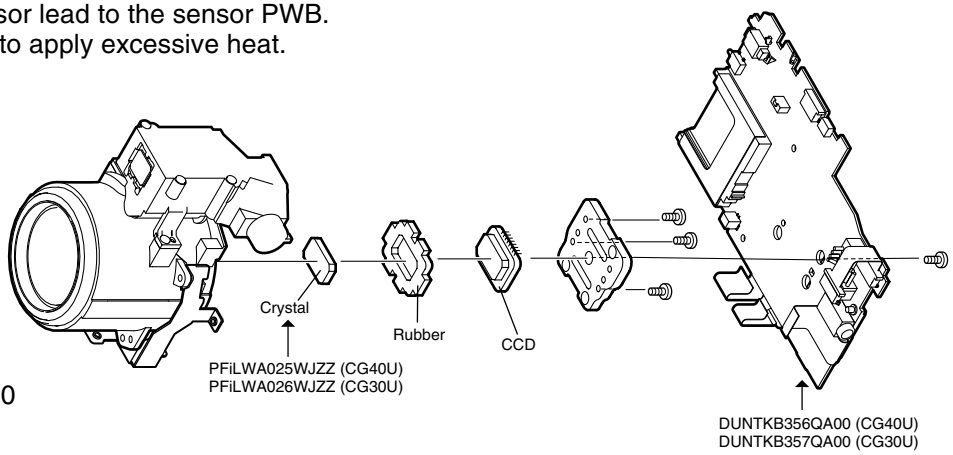


4-2-2. REMOVAL OF CCD

1) Unsolder the CCD sensor leads from the MAIN PWB.
2) Take out the MAIN PWB.
3) Remove the three screws (LX-HZ0013TAFF), and remove the sensor holder and CCD sensor.

4-2-3. MOUNTING OF CCD

1) Place the lens unit upright (since the CCD sensor mount ID faces upward, care must be taken so as not to damage the front lens of unit), put the crystal filter first and then the dust protection rubber into the CCD holder of lens unit.
   Set the crystal unit with its thin side toward the lens unit.
2) Place the CCD sensor so that the its No. 1 pin is at the right lower (Positioning hole to be at right), and put the CCD sensor into the CCD holder. For smooth and tight fitting, press the right lower part of back of CCD sensor, and then press the left upper part.
   Note: Pay attention to the direction of CCD sensor.
3) Place the sensor holder so that its two round markings be visible, and fix the sensor holder with the theree screws (LX-HZ0013TAFF).
4) Mount the MAIN PWB so that the CCD sensor leads go thorough the PWB holes.
5) Solder the CCD sensor lead to the sensor PWB.
   Note: Take care not to apply excessive heat.



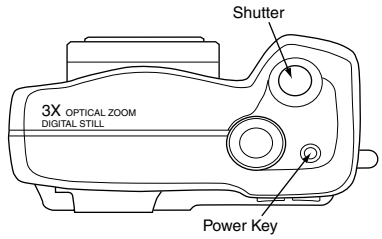
*Refer to P.80

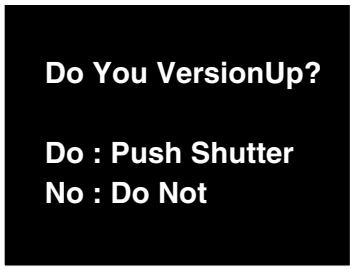
5.TEST MODE FUNCTION

[Note]: The meaning of TEST MODE FUNCTION Under this test mode, following things can be done.
1; Check and change EEPROM values, if required. 2; Apply several tests and adjustments.
3; Check the version # of firmware.

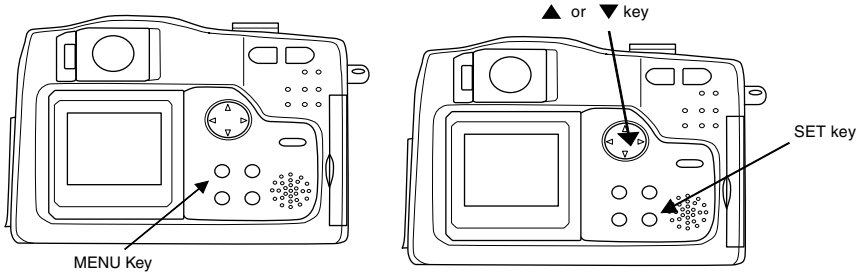
How to enter the test mode (TEST MODE initial screen)

Reset the user mode settings first. Download the user mode settings reset program to the SD card to create a test mode setting card. Regarding Test Mode Setting Program("Shce0009.dat" & "Shcu0009.dat"), please refer to Service Information. Insert this SD card for resetting the user mode settings in the camera and turn on the power while pressing shutter. Then, "do you vertion up?; Do: Push Shutter, No: Do Not" appears on the CGS display. Next press shutter to set the factory mode setting. (If it is not mecessary to reset the user mode setting, turn off the power and remove the SD card.) The message changes to "vertion up start", and "version up complete" appears soon. After checking that the power has turned on, turn it off and remove the SD card. Now restting the default settings is finished.

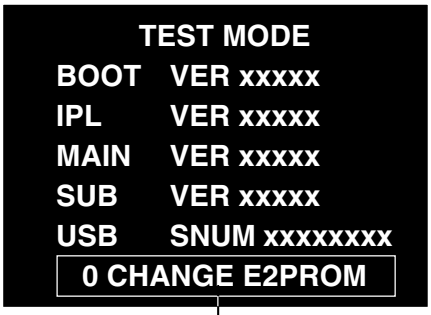




Set the camera to the factory mode in the following procedure.
1) Turn on the power by pressing the power key with the MENU key pressed down.
2) When entering the test mode, the screen on the right(TEST MODE initial screen)



TEST MODE initial screen



How to enter each test mode

1) Press the ▲ or ▼ key to select the desired test mode.
Each time you press the ▲ or ▼ key, each test item is displayed.
Test Nos. and the corresponding test items are as follows.

TEST NOS.	Test item	▲ ▼	Display
TEST 0	EEPROM address change		0 CANGE E2PROM
TEST 1	LCD test pattern display		1 TEST PATERN
TEST 2	Default settings		2 SET SHIPPING
TEST 3	White balance low color temp. adjustment		3 WB LOW TEMP
TEST 4	White balance high color temp. adjustment		4 WB HIGH TEMP
TEST 5	CCD pixel defect correction		5 DEFECT WHT BLK
TEST 6	Not use in service		6 DEFECT WHT BLK
TEST 7	AF adjustment		7 FOCUS
TEST 8	Not use in service		8 CCD SENSITIVITY
TEST 9	Shutter timing adjustment (open side)		9 SHUTTER OPEN
TEST A	Shutter timing adjustment (close side)		A SHUTTER CLOSE
TEST B	Not use in service		B WB HIGH CALIB
TEST C	Not use in service		C LCD POSITION
TEST D	Battery adjustment		D BATTERY VOLTAGE
TEST E	Not use in service		E WB LOW CALIB
TEST F	Not use in service		F TEST F

2) If the desired test item is found, press the SET key to select it.

[Note]: When finishing the service works, the camera must be set USER MODE again. In order to set the camera back to USER MODE, execute TEST 2 written as "User mode settings" on page 11.

5-1. Test mode specifications

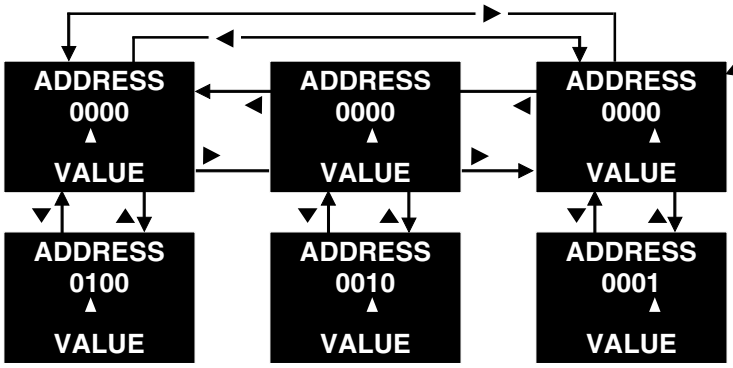
5-1-1. TEST 0: EEPROM address change

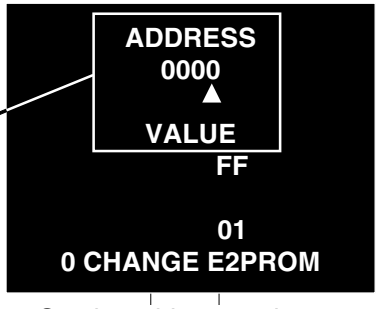
[Note]: If address is selected and the data is changed during adjustment, the data of EEPROM is rewritten, so take sufficient care for operation and never fail to take a memo of the address and the data before changing the data.

When entering the test mode 0, the screen on the right appears.

[Operation]

1. Move the triangle mark (▲) to the digit to be changed using the◄ or► button. Then change the address value with the ▲ or ▼ button as desired.





Set the address and press the SET key.
(▲) shifts to the value change mode.

2. The value in the flash memory for the set address (upper line) and the initial value (lower line) - if it has been set - are displayed under VALUE. Example: With the initial value 0, the upper line shows FF and the lower shows 01 at default.
3. When the address value is set, press the SET key to validate it. (▲) shifts to the value change mode.
4. As with the address value setting, change the value using the ◄or► and ▲ or▼ buttons.
5. When the value is set, press the SET key to validate it. (▲) shifts to the address change mode.
6. When changing other address values, repeat from step 1.

<<When displaying the battery adjustment value>>
The battery adjustment correction value may be displayed in negative. If so, "-" is displayed in front of the value (0000).

[Exit]

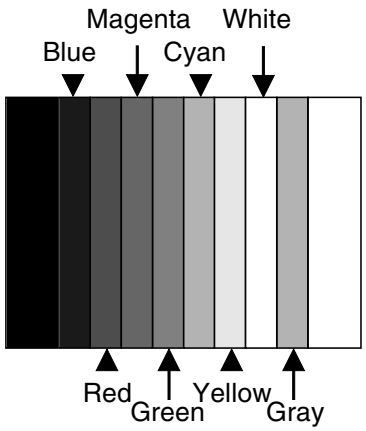
When setting is complete, perform either operation below.

- To select another test mode: Press the DELETE key to return to the TEST MODE initial screen.
- To end the test mode: Press the power key to turn off the camera.

5-1-2. TEST 1: LCD test pattern display

When entering the test mode 1, the screen below appears.

Test pattern



1: Color bar
2: BLACK
3: BLUE 10%
4: GREEN 50%
5: RED 30%
6: 50% WHITE
7: 30% WHITE
8: CROSS HATCH
9: 14 Steps Gray Scale

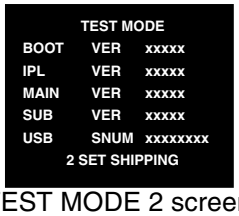
[Operation]

- Press the ▲or▼button to switch the test pattern. See above for available test patterns.
- Press the DELETE key to return to the TEST MODE initial screen.

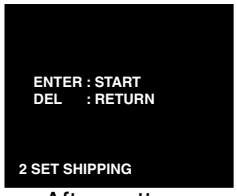
5-1-3. TEST 2: User mode settings

When finishing the service works, the camera must be set USER MODE again.
In order to set the camera back to USER MODE, execute TEST 2 as below.

Select the TEST 2 and press the SET key.



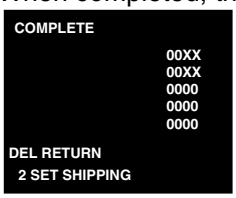
TEST MODE 2 screen



After settng

[Operation]

· Press the SET key start to [User Mode settings].
· When completed, the screen below appears.

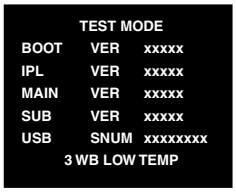


· Press the power key to end the test mode.

TEST 3,4,5,7,9,A and D are test modes for camera adjustment. See "5-2 Adjustment method" for detailed test environment.

5-1-4. TEST 3: White balance low color temp. adjustment

Select the TEST 3 and press the SET key.

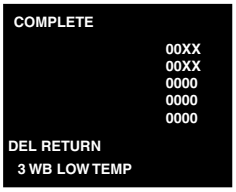


TEST MODE 3 screen

After settng

[Operation]

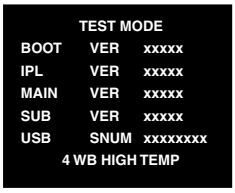
· Press the SET key to start adjustment.
· When completed, the screen below appears.



· To select another test mode:
Press the DELETE key to return to the TEST MODE initial screen.
· To end the test mode:
Press the POWER key to turn off the camera.

5-1-5. TEST 4: White balance high color temp. adjustment

Select the TEST 4 and press the SET key.

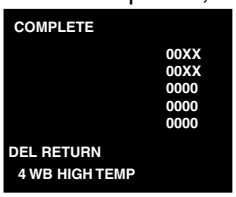


TEST MODE 4 screen

After settng

[Operation]

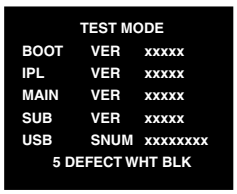
· Press the SET key to start adjustment.
· When completed, the screen below appears.



· To select another test mode:
Press the DELETE key to return to the TEST MODE initial screen.
· To end the test mode:
Press the POWER key to turn off the camera.

5-1-6. TEST 5: CCD pixel defect correction. adjustment

Select the TEST 5 and press the SET key.

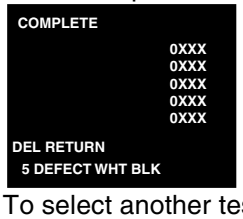


TEST MODE 5 screen

After settng

[Operation]

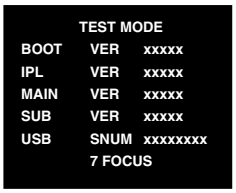
· Press the SET key to start adjustment.
· When completed, the screen below appears.



· To select another test mode:
Press the DELETE key to return to the TEST MODE initial screen.
· To end the test mode:
Press the POWER key to turn off the camera.

5-1-7. TEST 7: AF adjustment

Select the TEST 7 and press the SET key.

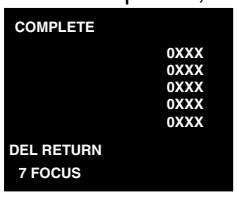


TEST MODE 7 screen

After settng

[Operation]

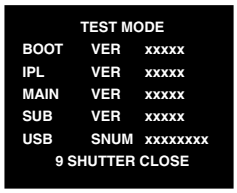
· Press the SET key to start adjustment.
· When completed, the screen below appears.



· To select another test mode:
Press the DELETE key to return to the TEST MODE initial screen.
· To end the test mode:
Press the POWER key to turn off the camera.

5-1-8. TEST 9: Shutter timing adjustment (close side)

Select the TEST 9 and press the SET key.

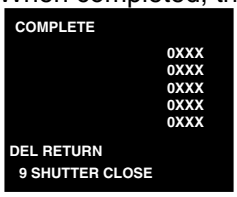


TEST MODE 9 screen

After settng

[Operation]

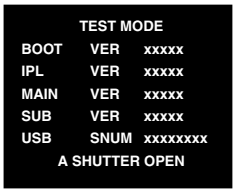
· Press the SET key to start adjustment.
· When completed, the screen below appears.



· To select another test mode:
Press the DELETE key to return to the TEST MODE initial screen.
· To end the test mode:
Press the POWER key to turn off the camera.

5-1-9. TEST A: Shutter timing adjustment (open side)

Select the TEST A and press the SET key.

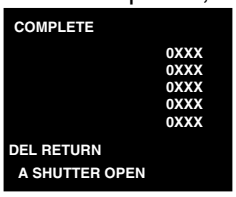


TEST MODE A screen

After settng

[Operation]

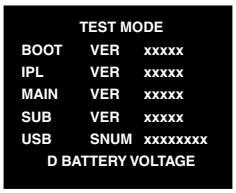
· Press the SET key to start adjustment.
· When completed, the screen below appears.



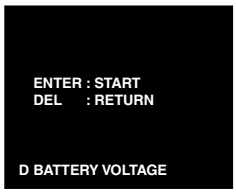
· To select another test mode:
Press the DELETE key to return to the TEST MODE initial screen.
· To end the test mode:
Press the POWER key to turn off the camera.

5-1-10. TEST D: Battery adjustment (open side)

Select the TEST D and press the SET key.



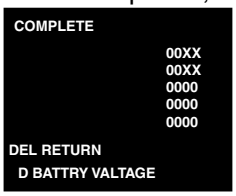
TEST MODE D screen



After settng

[Operation]

· Press the SET key to start adjustment.
· When completed, the screen below appears.



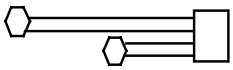
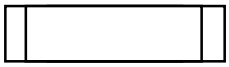
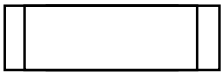
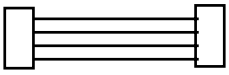
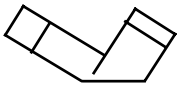
· To select another test mode:
Press the DELETE key to return to the TEST MODE initial screen.
· To end the test mode:
Press the POWER key to turn off the camera.

5-2. Adjustment method

<Neccesary object of shooting, measuring instrument and jigs>

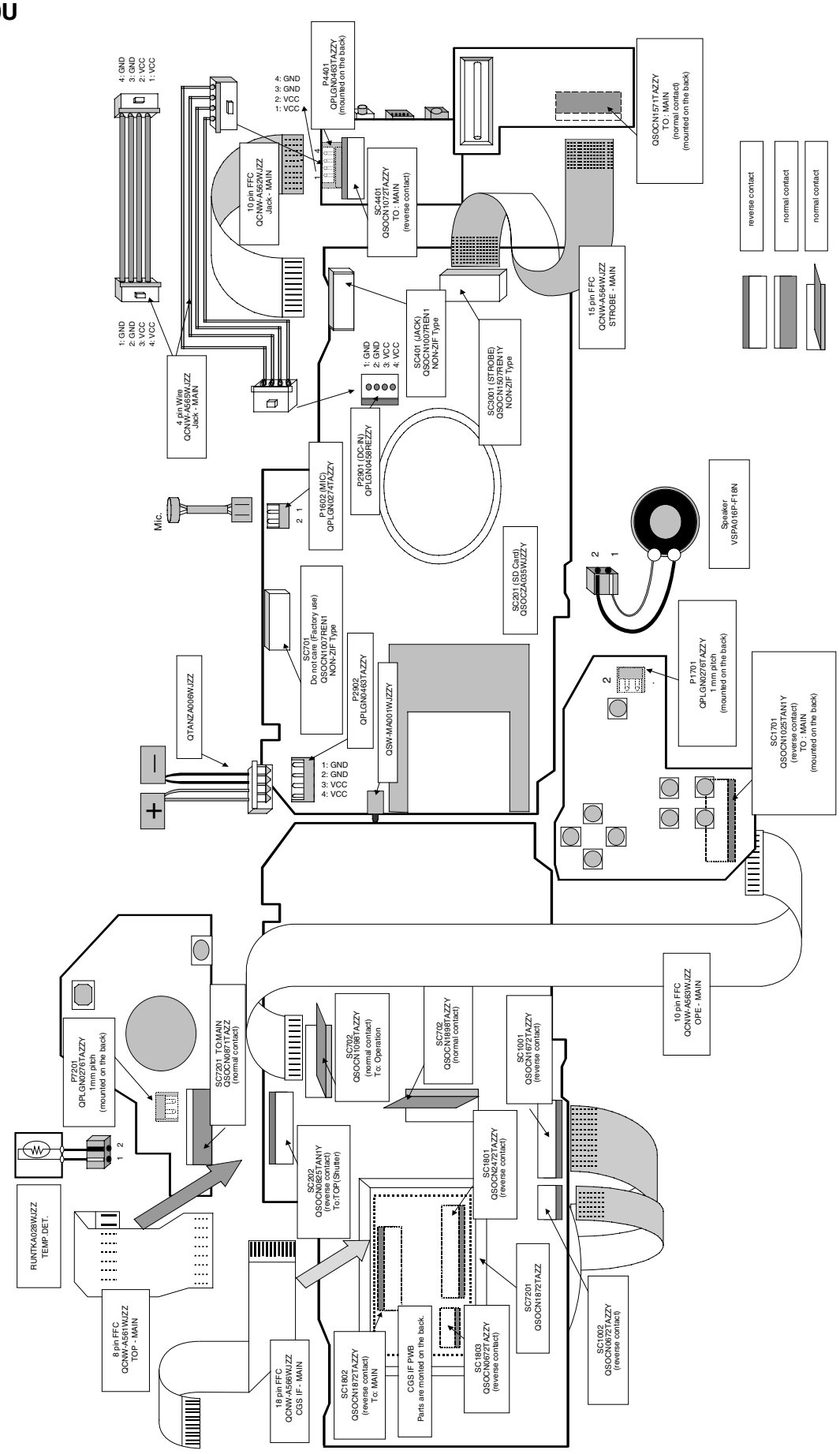
Jig name	Part code	Price code	Remarks
AC adapter	UADP-A013WJZZ	AY	
2 halogen lamps	Commerical item	–	
Gray scale chart	JiGCHART-1	CP	
Color Bar Chart	JiGCHART-4	DA	
Siemens star chart	JiGCHART-11	CE	
Illuminometer (0-3000 lux)	JiGMETER-1	CT	
Color temperature meter (1600 - 400000K)	JiGMETER-3	FF	
Color temperatute conversion filter (3200 - 6800K) HOYA "LB-165"	JiGHOYA-LB165	BN	

<Extention Cable etc.>

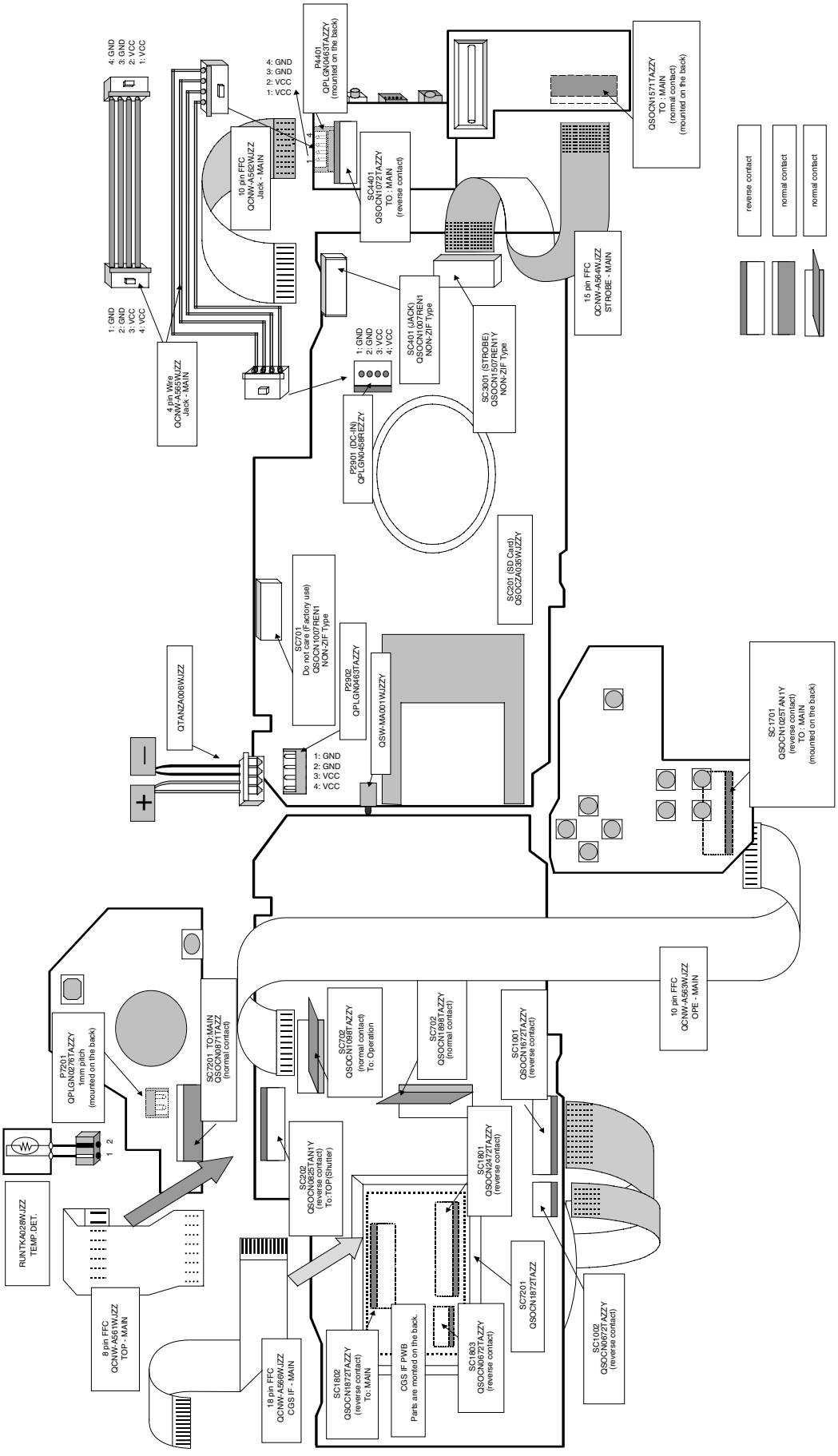
Jig name		Part code	Price code	Remarks
BATT.IN CHECK		QTANZA006WJZZ	AG	
Shutter PWB - Main PWB	 P=0.5mm FFC 8 pin	QCNW-A561WJZZ	AB	
Jack PWB - Main PWB * & Operation PWB - Main PWB	P=0.5mm FFC 10 pin	QCNW-A563WJZZ	AC	
Strobe Unit - Main PWB	 P=0.5mm FFC 15 pin	QCNW-A564WJZZ	AC	
Jack PWB - Main PWB	 4 pin Wire A'ssy	QCNW-A565WJZZ	AD	
LCD I/F PWB - Main PWB	 P=0.5mm FFC 18 pin	QCNW-A566WJZZ	AC	
ø3.5 A/V Cable		QCNWGA016WJZZ	AH	
ø3.5 Video Cable		QCNWGA017WJZZ	AH	
USB Cable		QCNWGA018WJPZ	AL	

* QCNW-A562WJZZ (P=0,5mm, FFC, 10 pin) is used for "Jack PWB - Main PWB" in production.

CONNECTOR LAYOUT DRAWING
VE-CG40U



CONNECTOR LAYOUT DRAWING
VE-CG30U



5-2-1. Power circuit adjustment

Conditions
Mode dial setting: AUTO
Measuring instrument: Digital voltmeter
Adjustment jig: Dummy load is connected to each TL.

Line name	TL	Current	Resistance
LCD 12.0V	TL5904	8.6mA	1.4KΩ
CAM 15.0V	TL1	10.0mA	1.4KΩ
CAM -7.0V	TL3	8.0mA	0.8KΩ

5-2-1-1. Power line voltage check

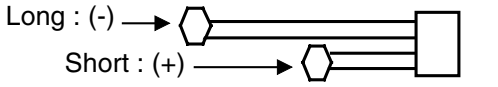
Power line name	Measuring point (TL)	Measured value
1.APCON 5V	TL3901	5.0±0.1V
2.APCON 3.3V	TL4901	3.3±0.1V
3.DPCON 3.3V	TL4902	3.3±0.1V
4.DPCON 1.8V	TL6901	1.8±0.1V
5.LCD 12V	TP5903	12.0±0.4V
6.CAM 15V	TL5901	15.0±0.5V
7.CAM -7.0V	TL5902	-7.0±0.35V

5-2-1-2. Temperature detection function check

Connect a resistor of 680Ω between TL770 and GND and check that the power is turned off.

5-2-1-3. Battery shutoff voltage adjustment

1) Connect the BTT.IN Check jig (QTANZA006WJZZ) to the main PWB P2902.
2) Apply 3.90±0.03V between the positive (+) and negative (-) electrodes of the BATT.IN Check jig (QTANZA006WJZZ).
3) According to the procedure of 5-1, set <TEST D> and press the SET key to adjust the voltage.



BATT.IN Check jig (QTANZA006WJZZ)

5-2-2. LCD circuit adjustment

Conditions
Mode: Set <TEST 0> according to the procedure of 5-1 and select the ADDRESS value which is specified in the following adjustment items. Set E2PROM data to the value specified in the adjustment procedure. See 5-1-1.
Measuring instrument: Digital voltmeter, oscilloscope

5-2-2-1. VCO adjustment

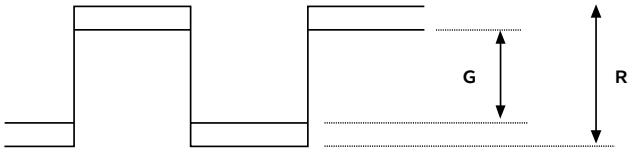
Address: 0518
Measuring point: TL1819
TL1818 (GND)
Adjustment specification: 1.66V±0.1V

(1) Connect the digital voltmeter to TL1819.
(2) Select the address 0518 and set the address. (No signal on the LCD Display)
(3) Set the data of the DC voltage to a specified value using ▲ or ▼ key.

5-2-2-2. R-W/B ADJ

Address: 0501
Measuring point: TL1837 (G-OUT)
TL1838 (R-OUT)
TL1832 (GND)
Adjustment specification: 0V±0.05V

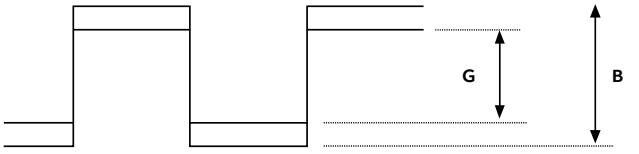
(1) Connect the oscilloscope to TL1837 (G-OUT)/TL1838 (R-OUT).
(2) Select the address 0501 and set the address. (No signal on LCD Display)
(3) Adjust the difference between peak-to-peak values of TL1837 (G-OUT) and TL1838 (R-OUT) using ▲ or ▼ key.



5-2-2-3. B-W/B ADJ

Address: 0502
Measuring point: TL1837 (G-OUT)
TL1836 (B-OUT)
TL1832 (GND)
Adjustment specification: 0V±0.05V

(1) Connect the oscilloscope to TL1837 (G-OUT)/TL1836 (B-OUT).
(2) Select the address 0502 and set the address. (No signal on LCD Display)
(3) Adjust the difference between peak-to-peak values of TL1837 (G-OUT) and TL1838 (R-OUT) using ▲ or ▼ key.



5-2-2-4. Common bias DC voltage adjustment

Address: 0509
Measuring point: TL1842
TL1832 (GND)

(1) Connect the digital voltmeter to TL1842.
(2) Select the address 0509 and set the address.
(Color Bar pattern appears onLCD Display)
(3) Set the data of the DC voltage to a specified value using ▲or▼key.

Adjustment specification: 6.3V±0.1V

5-2-2-5. Video output level adjustment

Address: 0065
Measuring point: TL407
TL411 (GND)

(1) Connect the oscilloscope to TL407.(Video out; 75Ω termination)
(2) Select the address 0065 and set the address. (No signal on LCD Display)
(3) Set the level of H-SYNC to the adjustment specified value using▲or▼key.

Adjustment specification: 0.28V±0.01Vp-p

5-2-3. Camera circuit adjustment

• Preparation before adjustment and check items
(1) Illuminate the entire pattern evenly with luminance of approx. 2000 lux(In the white chart) (2 or more light sources are recommended). Set the color temperature to 3200K.
(2) Use a new test pattern with no soil or color degradation.
(3) If defects are found in the electric circuit, identify the defective part using the measuring instrument and repair/replace it before adjustment.

5-2-3-1. Focus infinity adjustment

[Purpose]
Focus point in each zoom position of the lens is memorized to correct the focus tracking position when operating the zoom lens.
[Object]
Siemens Star Chart via the collimator or an object with simple and distinct outline.
If you do not have a collimator, perform adjustment while shooting an object with distinct outline from a long distance.
Since the lens is automatically moved from Wide to Tele during adjustment, do not put an object in front of the camera (do not shoot an object with a distinct outline when the lens is located at Wide).
[Procedure]
• After making the settings above, set <TEST 7> according to the procedures of 5-1 and execute it.
• Auto adjustment is performed.
Each optical zoom position is set, and the focus infinity position at that time is stored in memory.
• During adjustment, <EXECUTING> and the object are displayed on the LCD monitor.
• Data is collected while changing the zoom from Wide to Tele. Do not place any obstacles in front of the camera until the adjustment is completed.
• If <OK> appears on the LCD monitor, adjustment is completed.

5-2-3-2. Adjustment for CCD pixel defect detection

[Purpose]
To memorize and correct the CCD imager's white balance defect in the dark and black balance defect in the brightness.
[Object]
An evenly illuminated white object under the lighting described in "Preparation before adjustment and check items" (a light box can be used).
[Procedure]
• After making the settings above, set <TEST 5> according to the procedures of 5-1 and execute it.
• Auto adjustment is executed.
The lens is automatically shielded from the light and white balance in the dark is corrected.
Next, the aperture of the lens is automatically opened and black balance in the brightness is corrected while a white object is shot.
• During adjustment, <EXECUTING> and the object appear on the LCD monitor.
• If <OK> appears on the LCD monitor, adjustment is completed.

5-2-3-3. Mechanical shutter open aperture adjustment/CCD sensitivity adjustment

[Purpose]

• Brightness of the optical system including the CCD imager is adjusted to obtain ISO100.
• Operation time in the open state of the mechanical shutter aperture is memorized and the variation of exposing time is removed.

[Object]

• An evenly illuminated white object under the lighting described in “Preparation before adjustment and check items”.

[Procedures]

• After making the settings above, set <TEST 9> according to the procedures of 5-1 and execute it.
• Auto adjustment is executed.
• During adjustment, <EXECUTING> and the object are displayed on the LCD monitor.
• If <OK> appears on the LCD monitor, adjustment is completed.
• With <TEST 9>, the mechanical shutter opening adjustment and the CCD sensitivity adjustment are executed.

5-2-3-4. Mechanical shutter closed aperture adjustment

[Purpose]

• Operation time in the closed state of the mechanical shutter aperture is memorized and the variation of exposing time is removed.

[Object]

• An evenly illuminated white object under the lighting described in “Preparation before adjustment and check items”.

[Procedures]

• After making the settings above, set <TEST A> according to the procedures of 5-1 and execute it.
• Auto adjustment is executed.
• During adjustment, <EXECUTING> and the object are displayed on the LCD monitor.
• If <OK> appears on the LCD monitor, adjustment is completed.

5-2-3-5. WB low color temperature adjustment

[Purpose]

• The variation of CCD spectral characteristic (R, G, B) at low color temperature (3200K) is removed.

[Object]

• An evenly illuminated white object under the lighting described in “Preparation before adjustment and check items”.

[Procedure]

• After making the settings above, set <TEST 3> according to the procedures of 5-1 and execute it.
• Auto adjustment is executed.
• During adjustment, <EXECUTING> and the object appear on the LCD monitor.
• If <OK> appears on the LCD monitor, adjustment is completed.

5-2-3-6. WB high color temperature adjustment

[Purpose]

• The variation of CCD spectral characteristic (R, G, B) at high color temperature (outside light, etc.) is removed.

[Object]

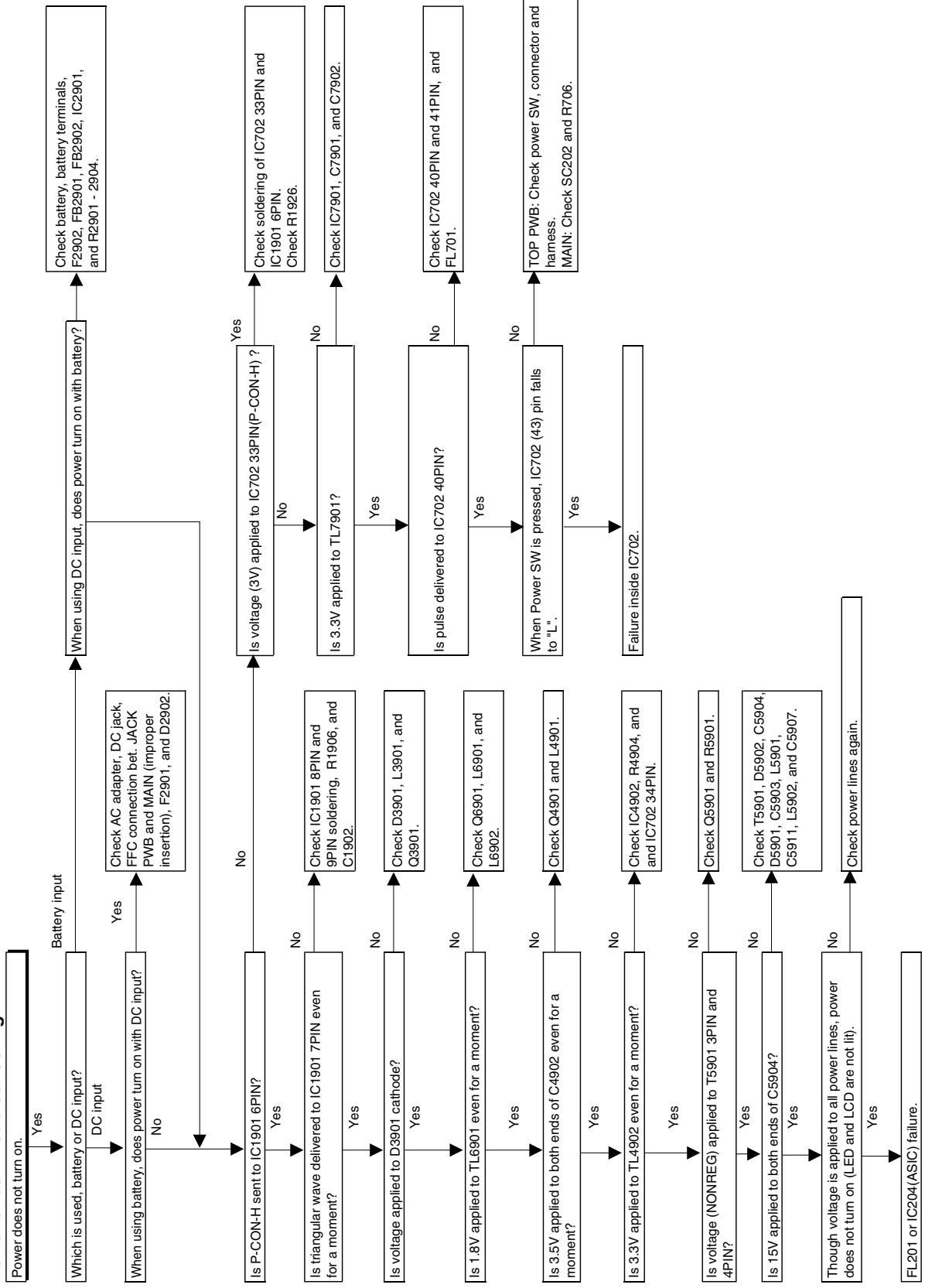
• An evenly illuminated white object under the lighting described in “Preparation before adjustment and check items”.
• Mount the color temperature conversion filter LB165 in front of the lens.

[Procedure]

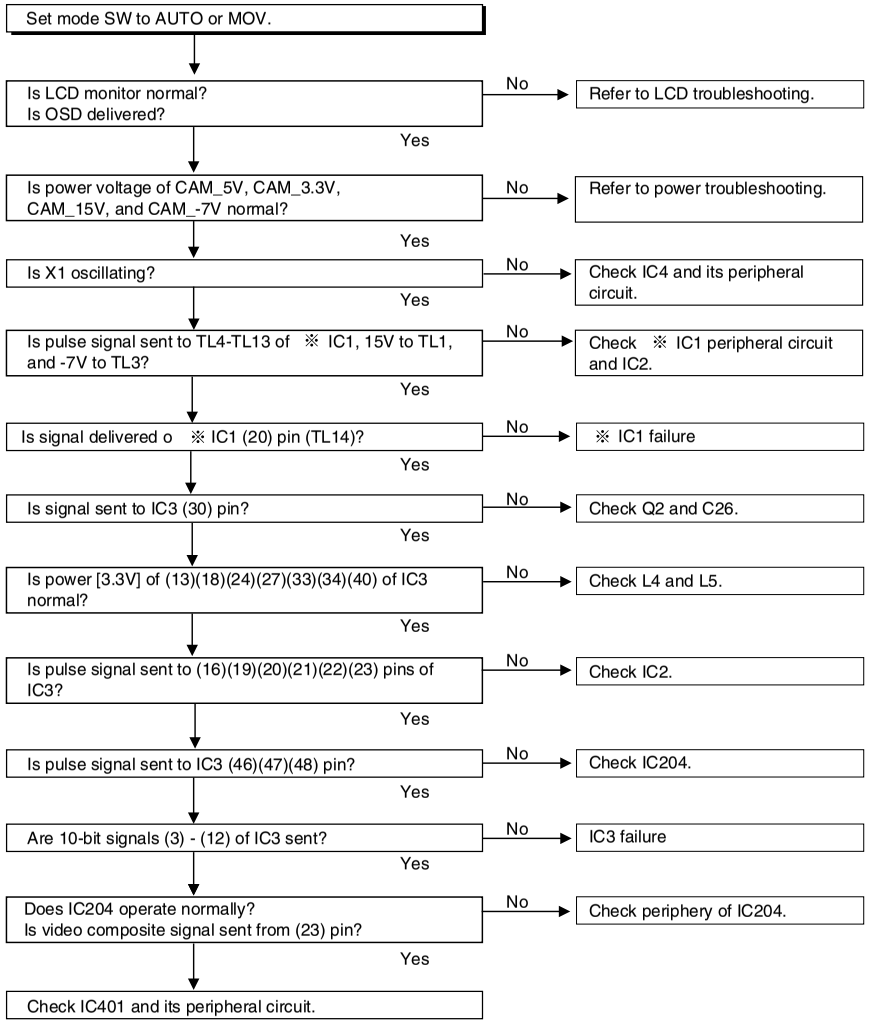
• After making the settings above, set <TEST 4> according to the procedures of 5-1 and execute it.
• Auto adjustment is executed.
• During adjustment, <EXECUTING> and the object appear on the LCD monitor.
• If <OK> appears on the LCD monitor, adjustment is completed.

6.TROUBLESHOOTING

Power circuit troubleshooting

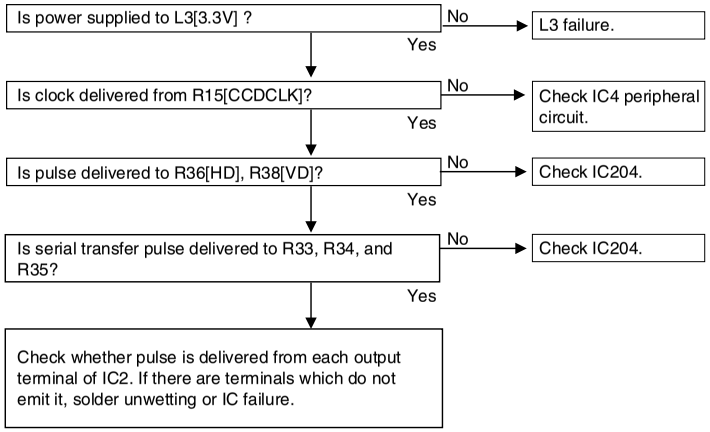

Power does not turn on.
Which is used, battery or DC input?
Battery input
DC input
When using DC input, does power turn on with battery?
Yes
Check battery, battery terminals, F2902, FB2901, FB2902, IC2901, and R2901 - 2904.
When using battery, does power turn on with DC input?
No
Yes
Check AC adapter, DC jack, FFC connection bet. JACK PWB and MAIN (improper insertion), F2901, and D2902.
Is P-CON-H sent to IC1901 6PIN?
No
Yes
Is voltage (3V) applied to IC702 33PIN(P-CON-H) ?
No
Yes
Check soldering of IC702 33PIN and IC1901 6PIN. Check R1926.
Is triangular wave delivered to IC1901 7PIN even for a moment?
No
Yes
Check IC1901 8PIN and 9PIN soldering, R1906, and C1902.
Is 3.3V applied to TL7901?
No
Yes
Check IC7901, C7901, and C7902.
Is voltage applied to D3901 cathode?
No
Yes
Check D3901, L3901, and Q3901.
Is pulse delivered to IC702 40PIN?
No
Yes
Check IC702 40PIN and 41PIN, and FL701.
Is 1.8V applied to TL6901 even for a moment?
No
Yes
Check Q6901, L6901, and L6902.
When Power SW is pressed, IC702 (43) pin falls to "L".
No
Yes
TOP PWB: Check power SW, connector and harness. MAIN: Check SC202 and R706.
Is 3.5V applied to both ends of C4902 even for a moment?
No
Yes
Check Q4901 and L4901.
Failure inside IC702.
Is 3.3V applied to TL4902 even for a moment?
No
Yes
Check IC4902, R4904, and and IC702 34PIN.
Is voltage (NONREG) applied to T5901 3PIN and 4PIN?
No
Yes
Check Q5901 and R5901.
Is 15V applied to both ends of C5904?
No
Yes
Check T5901, D5902, C5904, D5901, C5903, L5901, C5911, L5902, and C5907.
Though voltage is applied to all power lines, power does not turn on (LED and LCD are not lit).
No
Yes
Check power lines again.
FL201 or IC204(ASIC) failure.

Camera troubleshooting



※ IC1 corresponds to the part 103 of the Camera Exploded View on page 82.

Check IC2 (in the checkable range since it is CSP).


Is power supplied to L3[3.3V] ?
No
L3 failure.
Yes
Is clock delivered from R15[CCDCLK]?
No
Check IC4 peripheral circuit.
Yes
Is pulse delivered to R36[HD], R38[VD]?
No
Check IC204.
Yes
Is serial transfer pulse delivered to R33, R34, and R35?
No
Check IC204.
Yes
Check whether pulse is delivered from each output terminal of IC2. If there are terminals which do not emit it, solder unwetting or IC failure.

LCD PWB troubleshooting

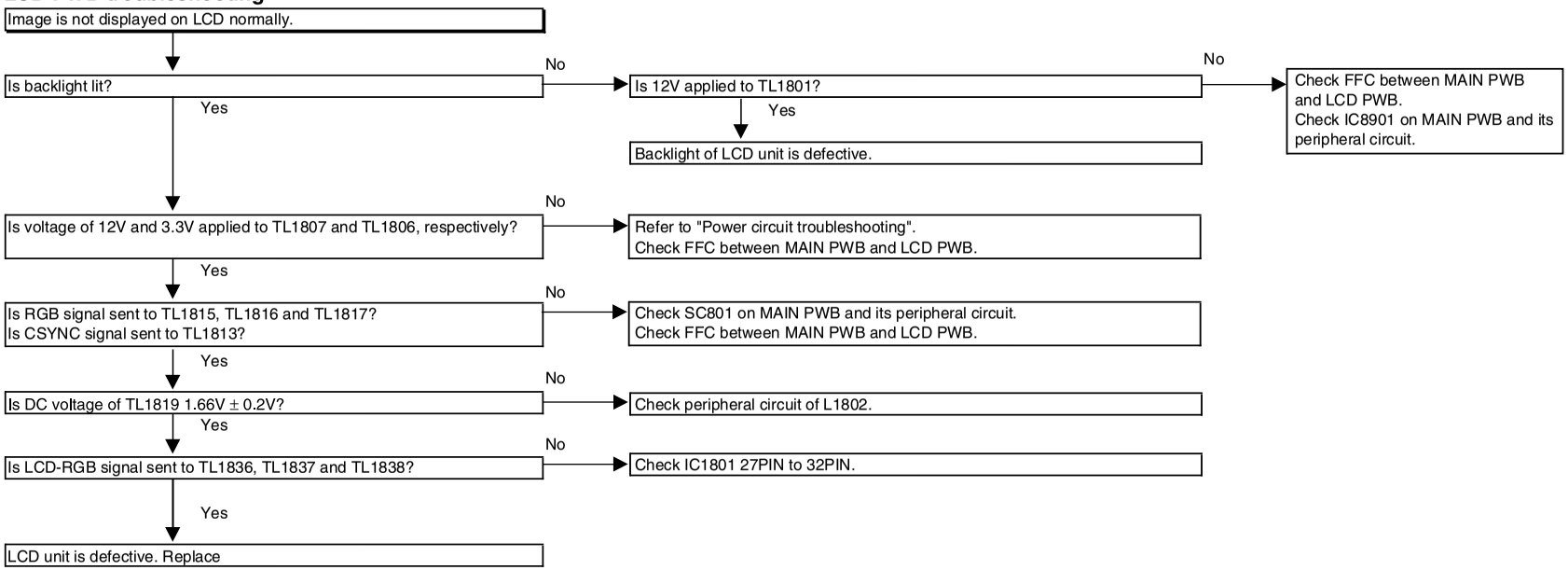
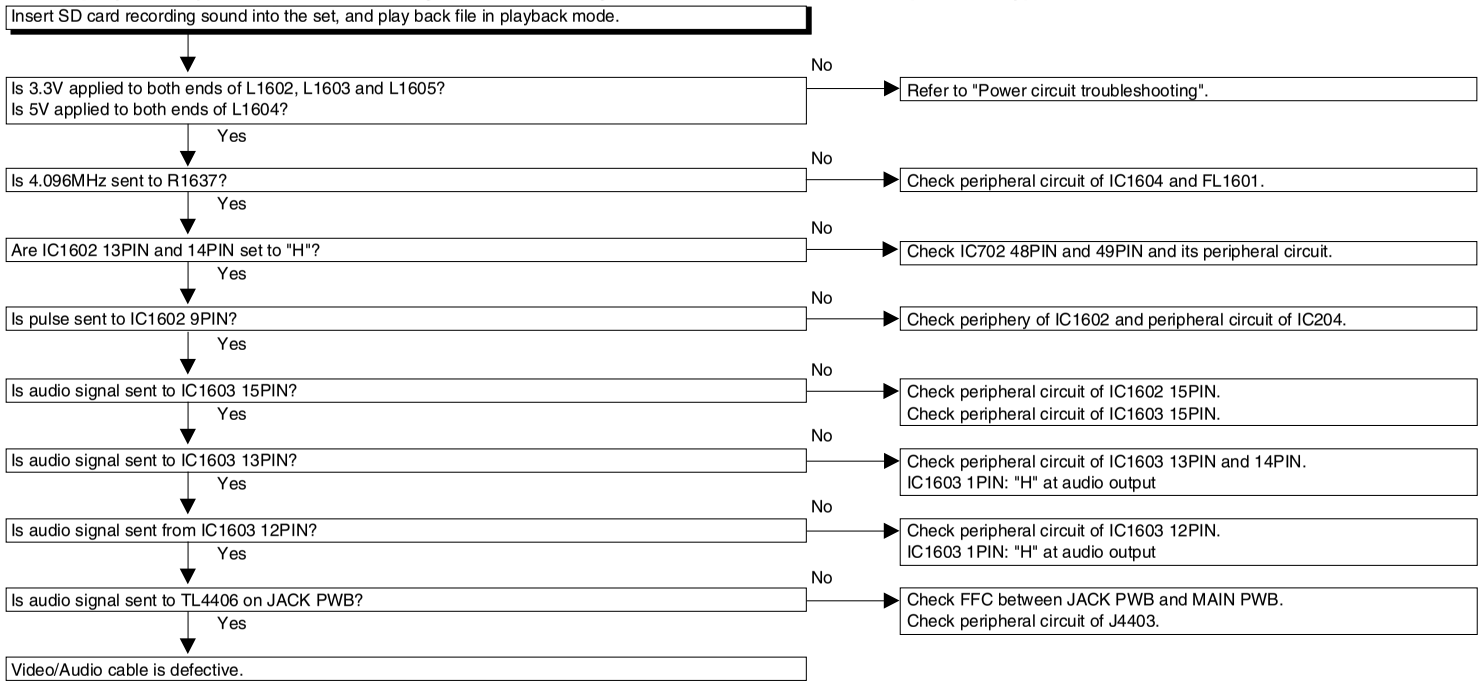
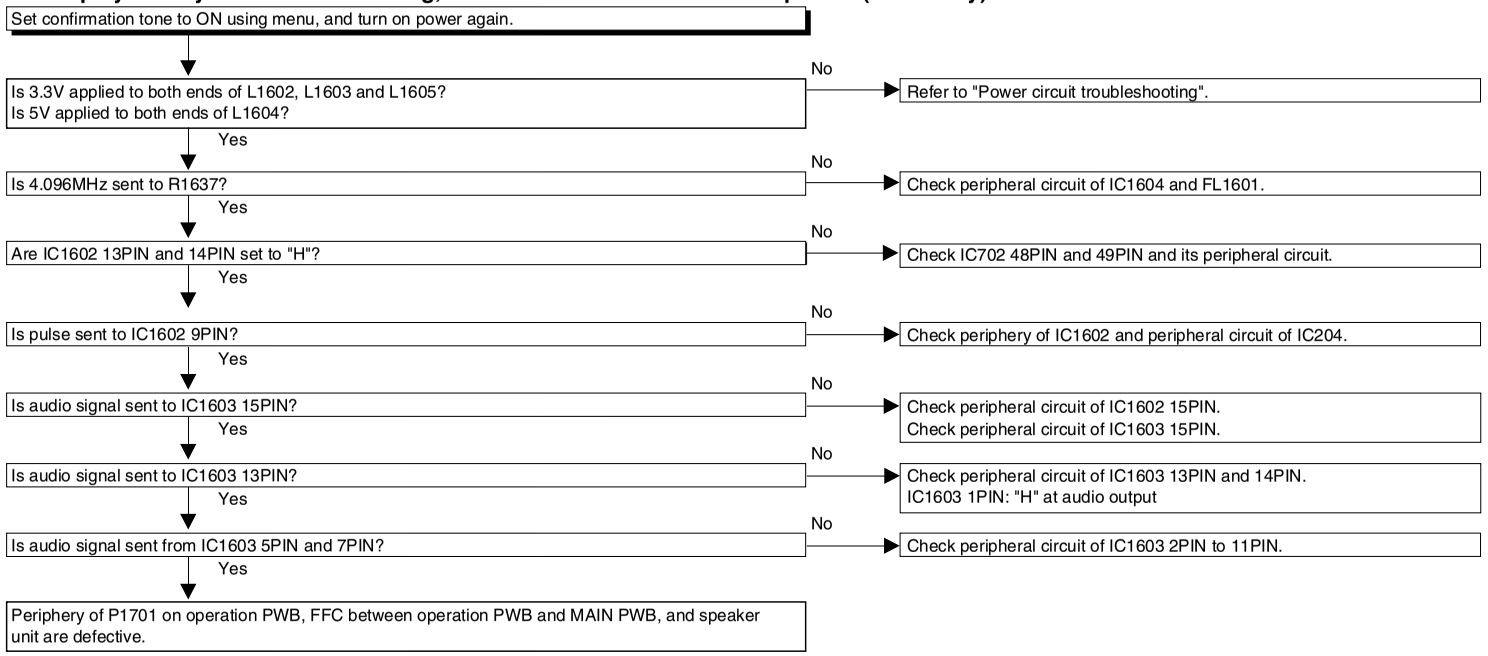


Image is not displayed on LCD normally.
Is backlight lit?
No
Is 12V applied to TL1801?
No
Check FFC between MAIN PWB and LCD PWB.
Check IC8901 on MAIN PWB and its peripheral circuit.
Yes
Yes
Backlight of LCD unit is defective.
Is voltage of 12V and 3.3V applied to TL1807 and TL1806, respectively?
No
Refer to "Power circuit troubleshooting".
Check FFC between MAIN PWB and LCD PWB.
Yes
Is RGB signal sent to TL1815, TL1816 and TL1817?
Is CSYNC signal sent to TL1813?
No
Check SC801 on MAIN PWB and its peripheral circuit.
Check FFC between MAIN PWB and LCD PWB.
Yes
Is DC voltage of TL1819 1.66V ± 0.2V?
No
Check peripheral circuit of L1802.
Yes
Is LCD-RGB signal sent to TL1836, TL1837 and TL1838?
No
Check IC1801 27PIN to 32PIN.
Yes
LCD unit is defective. Replace

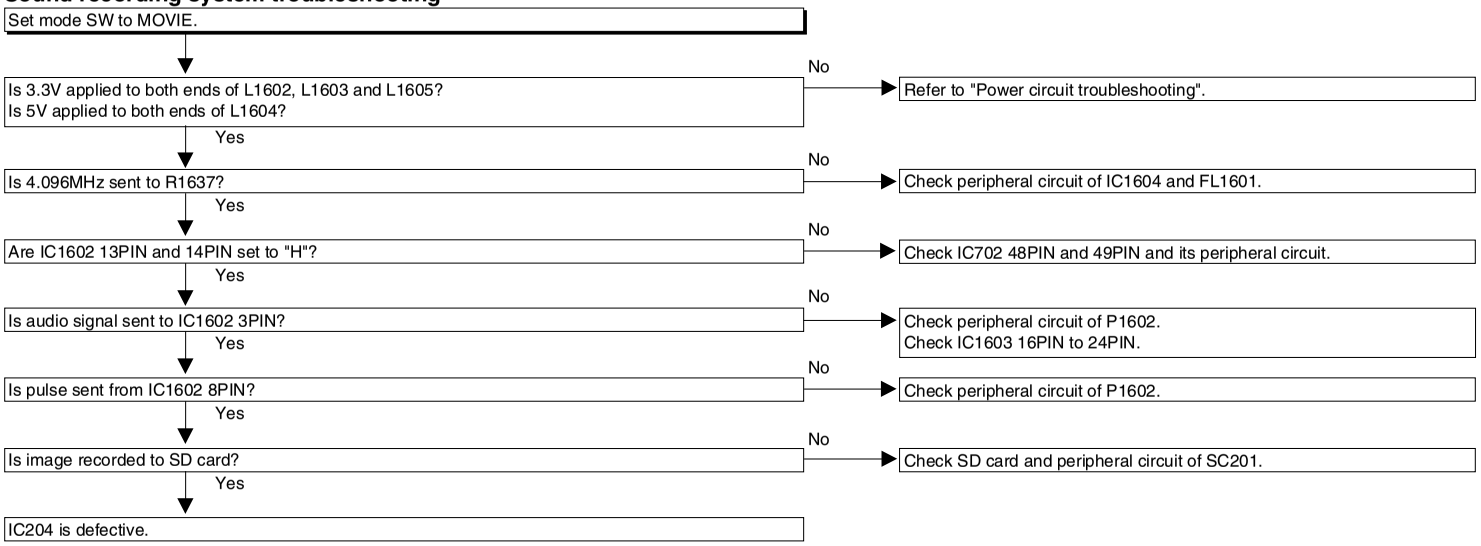
Sound playback system troubleshooting, when audio signal is not sent from line out (CG40 only)


Insert SD card recording sound into the set, and play back file in playback mode.
Is 3.3V applied to both ends of L1602, L1603 and L1605?
Is 5V applied to both ends of L1604?
No
Refer to "Power circuit troubleshooting".
Yes
Is 4.096MHz sent to R1637?
No
Check peripheral circuit of IC1604 and FL1601.
Yes
Are IC1602 13PIN and 14PIN set to "H"?
No
Check IC702 48PIN and 49PIN and its peripheral circuit.
Yes
Is pulse sent to IC1602 9PIN?
No
Check periphery of IC1602 and peripheral circuit of IC204.
Yes
Is audio signal sent to IC1603 15PIN?
No
Check peripheral circuit of IC1602 15PIN.
Check peripheral circuit of IC1603 15PIN.
Yes
Is audio signal sent to IC1603 13PIN?
No
Check peripheral circuit of IC1603 13PIN and 14PIN.
IC1603 1PIN: "H" at audio output
Yes
Is audio signal sent from IC1603 12PIN?
No
Check peripheral circuit of IC1603 12PIN.
IC1603 1PIN: "H" at audio output
Yes
Is audio signal sent to TL4406 on JACK PWB?
No
Check FFC between JACK PWB and MAIN PWB.
Check peripheral circuit of J4403.
Yes
Video/Audio cable is defective.

Sound playback system troubleshooting, when sound is not heard from speaker (CG40 only)


Set confirmation tone to ON using menu, and turn on power again.
Is 3.3V applied to both ends of L1602, L1603 and L1605?
Is 5V applied to both ends of L1604?
No
Refer to "Power circuit troubleshooting".
Yes
Is 4.096MHz sent to R1637?
No
Check peripheral circuit of IC1604 and FL1601.
Yes
Are IC1602 13PIN and 14PIN set to "H"?
No
Check IC702 48PIN and 49PIN and its peripheral circuit.
Yes
Is pulse sent to IC1602 9PIN?
No
Check periphery of IC1602 and peripheral circuit of IC204.
Yes
Is audio signal sent to IC1603 15PIN?
No
Check peripheral circuit of IC1602 15PIN.
Check peripheral circuit of IC1603 15PIN.
Yes
Is audio signal sent to IC1603 13PIN?
No
Check peripheral circuit of IC1603 13PIN and 14PIN.
IC1603 1PIN: "H" at audio output
Yes
Is audio signal sent from IC1603 5PIN and 7PIN?
No
Check peripheral circuit of IC1603 2PIN to 11PIN.
Yes
Periphery of P1701 on operation PWB, FFC between operation PWB and MAIN PWB, and speaker unit are defective.

Sound recording system troubleshooting

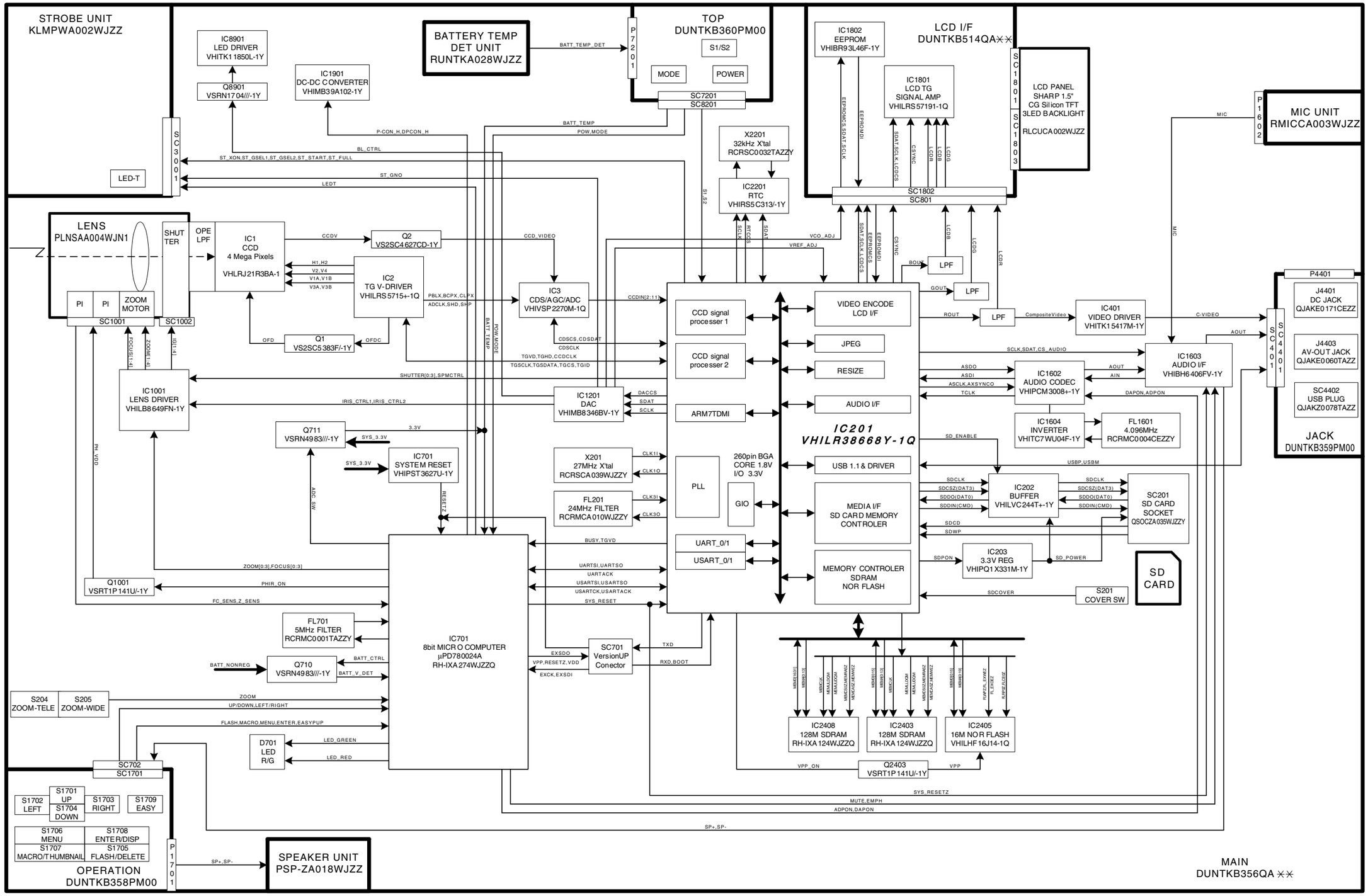

Set mode SW to MOVIE.
Is 3.3V applied to both ends of L1602, L1603 and L1605?
Is 5V applied to both ends of L1604?
No
Refer to "Power circuit troubleshooting".
Yes
Is 4.096MHz sent to R1637?
No
Check peripheral circuit of IC1604 and FL1601.
Yes
Are IC1602 13PIN and 14PIN set to "H"?
No
Check IC702 48PIN and 49PIN and its peripheral circuit.
Yes
Is audio signal sent to IC1602 3PIN?
No
Check peripheral circuit of P1602.
Check IC1603 16PIN to 24PIN.
Yes
Is pulse sent from IC1602 8PIN?
No
Check peripheral circuit of P1602.
Yes
Is image recorded to SD card?
No
Check SD card and peripheral circuit of SC201.
Yes
IC204 is defective.

- M E M O -

VE-CG30U
VE-CG40U

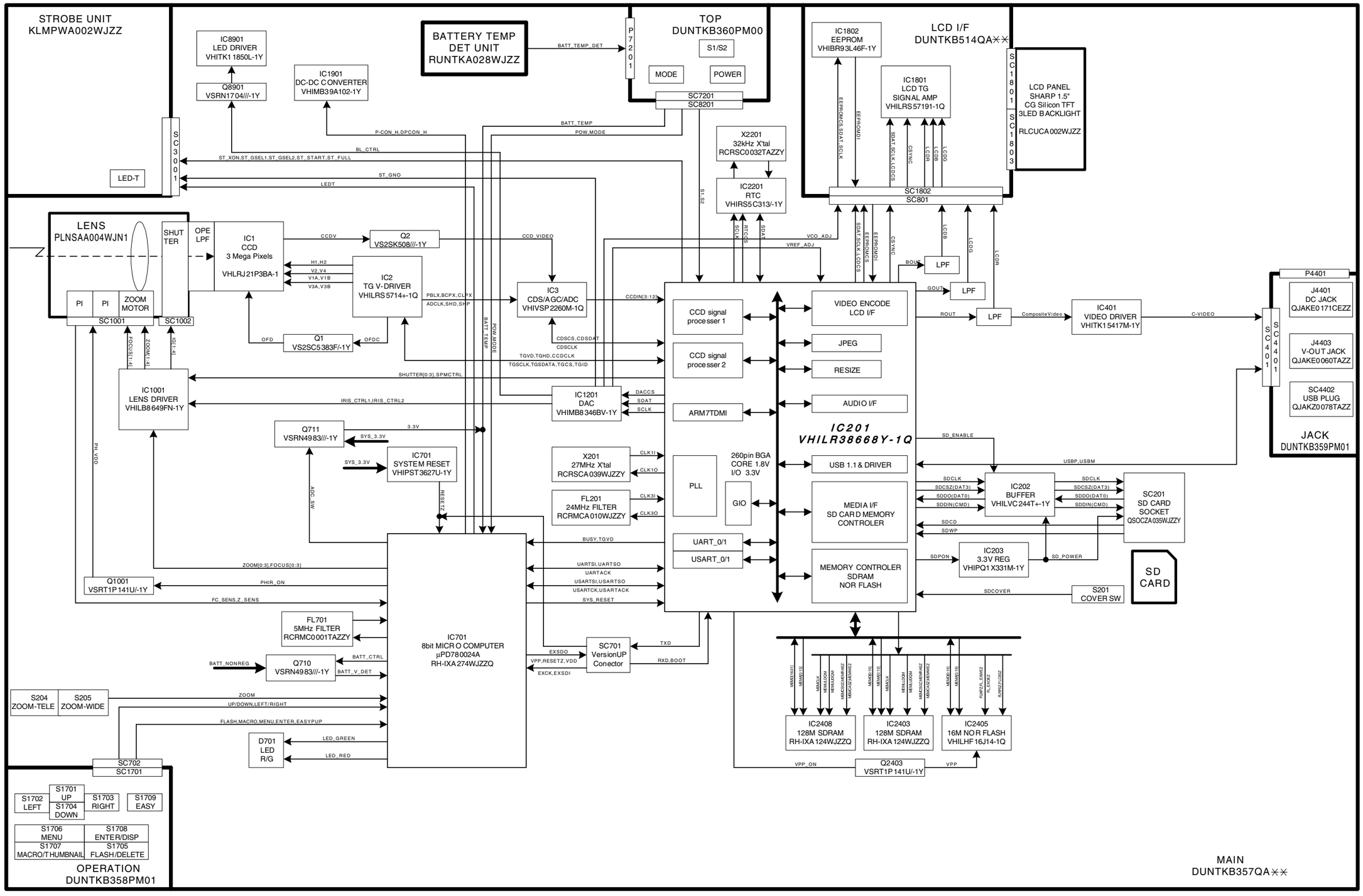
7. BLOCK DIAGRAMS

7-1. GENERAL BLOCK DIAGRAM (VE-CG40U)



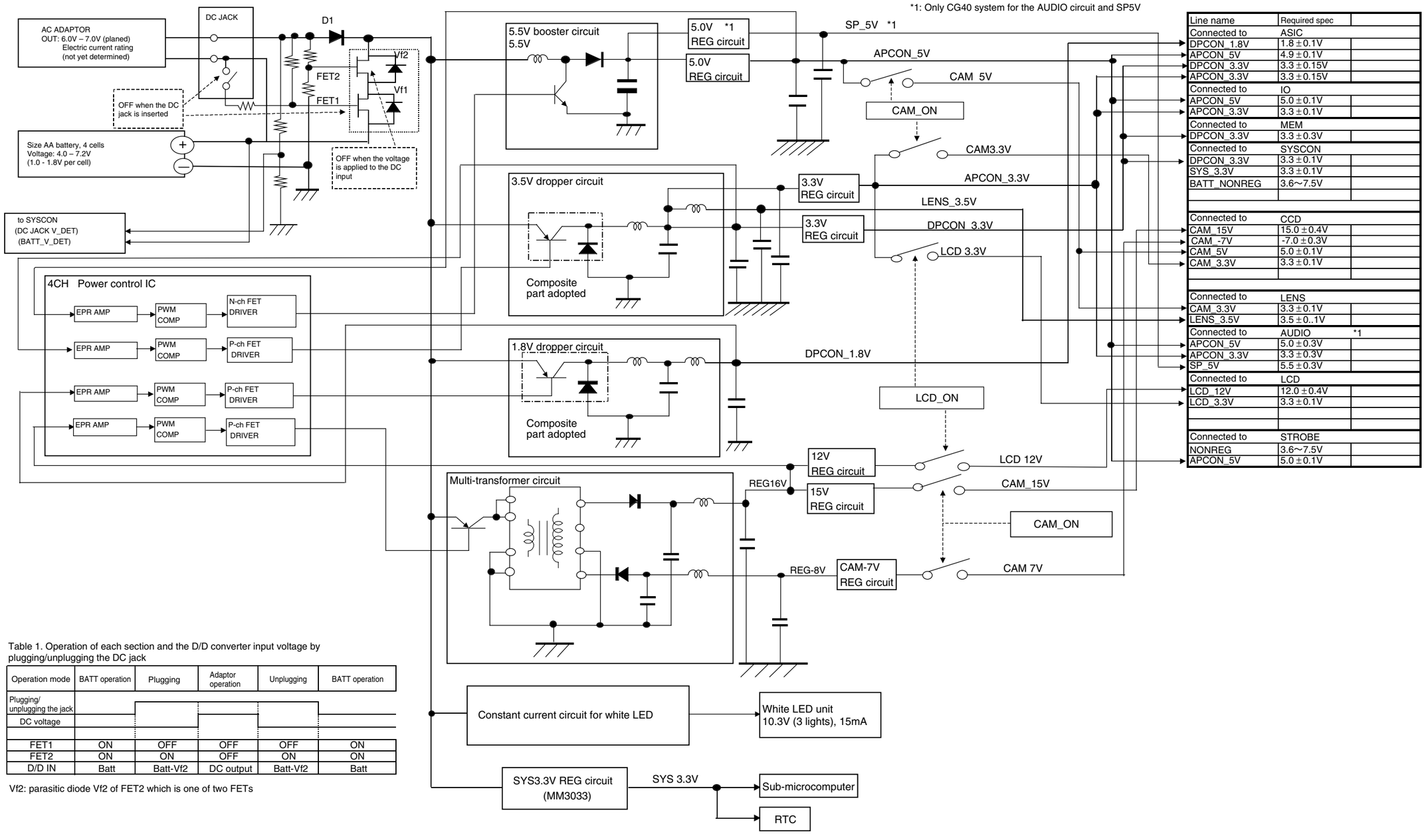
VE-CG30U
VE-CG40U

7-2. GENERAL BLOCK DIAGRAM (VE-CG30U)



VE-CG30U
VE-CG40U

7-3. POWER SECTION BLOCK DIAGRAM



Line name	Required spec	
Connected to	ASIC	
DPCON_1.8V	1.8 ±0.1V	
APCON_5V	4.9 ±0.1V	
DPCON_3.3V	3.3 ±0.15V	
APCON_3.3V	3.3 ±0.15V	
Connected to	IO	
APCON_5V	5.0 ±0.1V	
APCON_3.3V	3.3 ±0.1V	
Connected to	MEM	
DPCON_3.3V	3.3 ±0.3V	
Connected to	SYSCON	
DPCON_3.3V	3.3 ±0.1V	
SYS_3.3V	3.3 ±0.1V	
BATT_NONREG	3.6~7.5V	
Connected to	CCD	
CAM_15V	15.0 ±0.4V	
CAM_-7V	-7.0 ±0.3V	
CAM_5V	5.0 ±0.1V	
CAM_3.3V	3.3 ±0.1V	
Connected to	LENS	
CAM_3.3V	3.3 ±0.1V	
LENS_3.5V	3.5 ±0..1V	
Connected to	AUDIO	*1
APCON_5V	5.0 ±0.3V	
APCON_3.3V	3.3 ±0.3V	
SP_5V	5.5 ±0.3V	
Connected to	LCD	
LCD_12V	12.0 ±0.4V	
LCD_3.3V	3.3 ±0.1V	
Connected to	STROBE	
NONREG	3.6~7.5V	
APCON_5V	5.0 ±0.1V	

Table 1. Operation of each section and the D/D converter input voltage by plugging/unplugging the DC jack

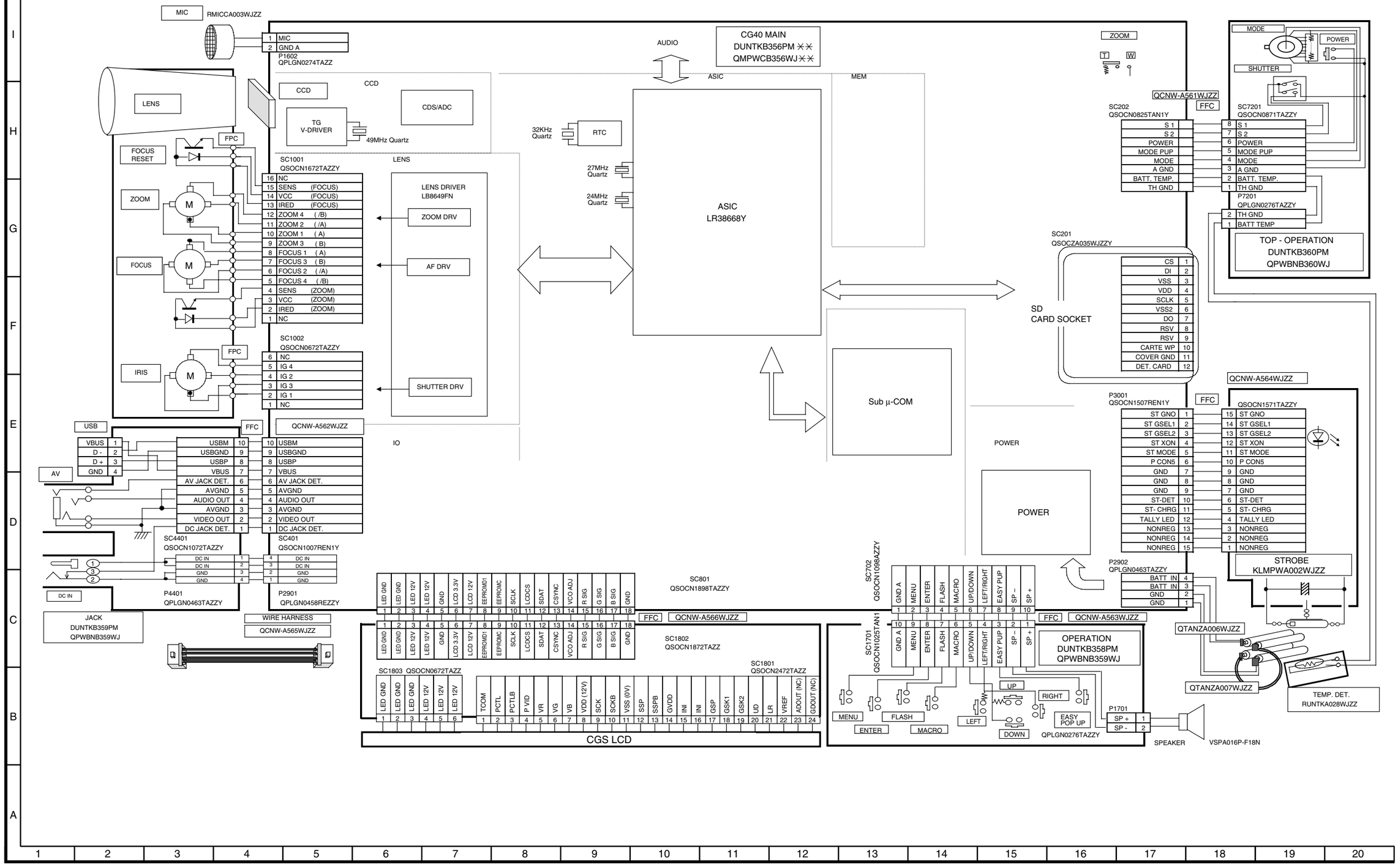
Operation mode	BATT operation	Plugging	Adaptor operation	Unplugging	BATT operation
Plugging/ unplugging the jack					
DC voltage					
FET1	ON	OFF	OFF	OFF	ON
FET2	ON	ON	OFF	ON	ON
D/D IN	Batt	Batt-Vf2	DC output	Batt-Vf2	Batt

Vf2: parasitic diode Vf2 of FET2 which is one of two FETs

VE-CG30U
VE-CG40U

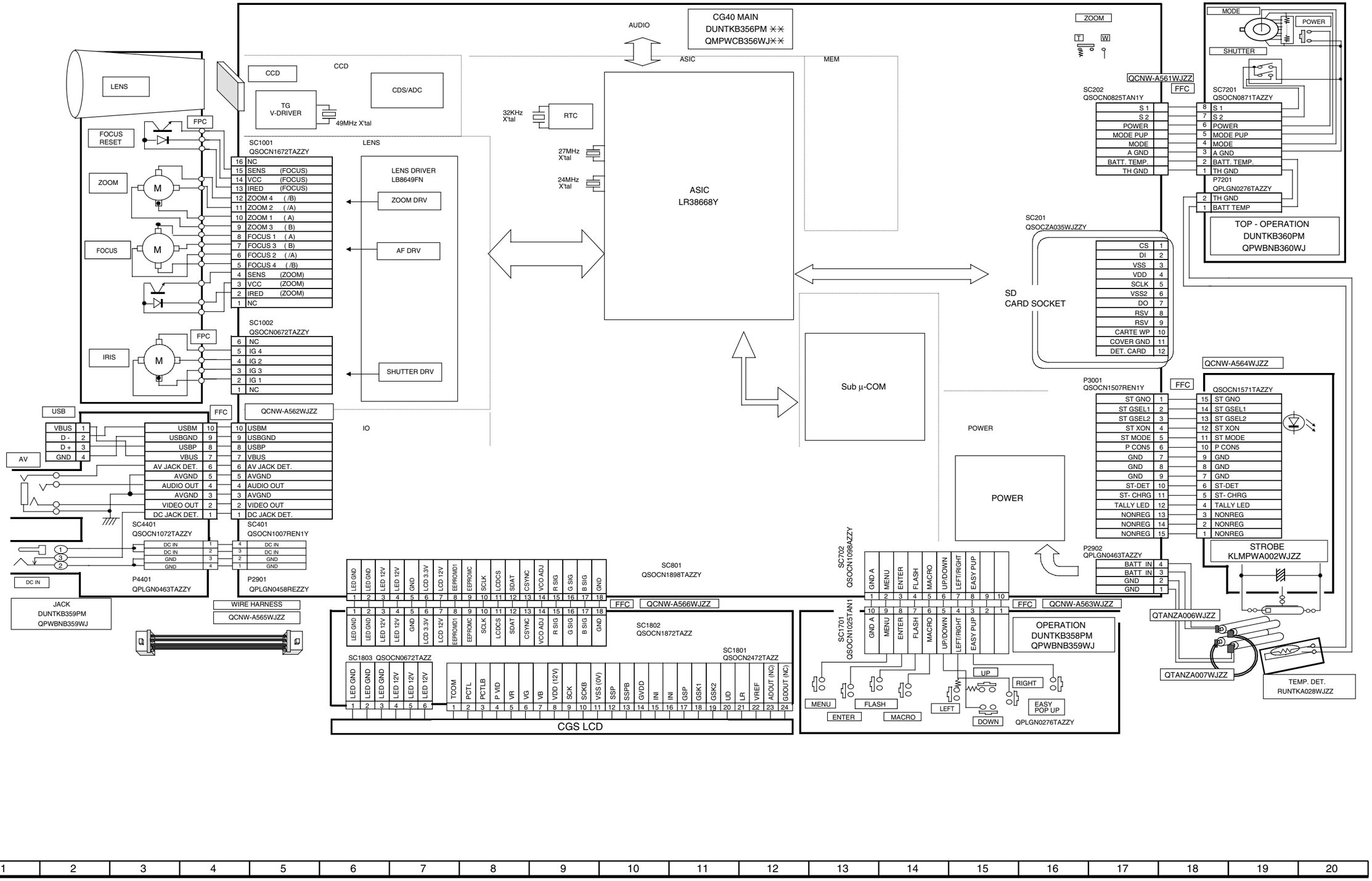
8. SCHEMATIC DIAGRAMS

8-1. OVERALL SCHEMATIC DIAGRAM (VE-CG40U)



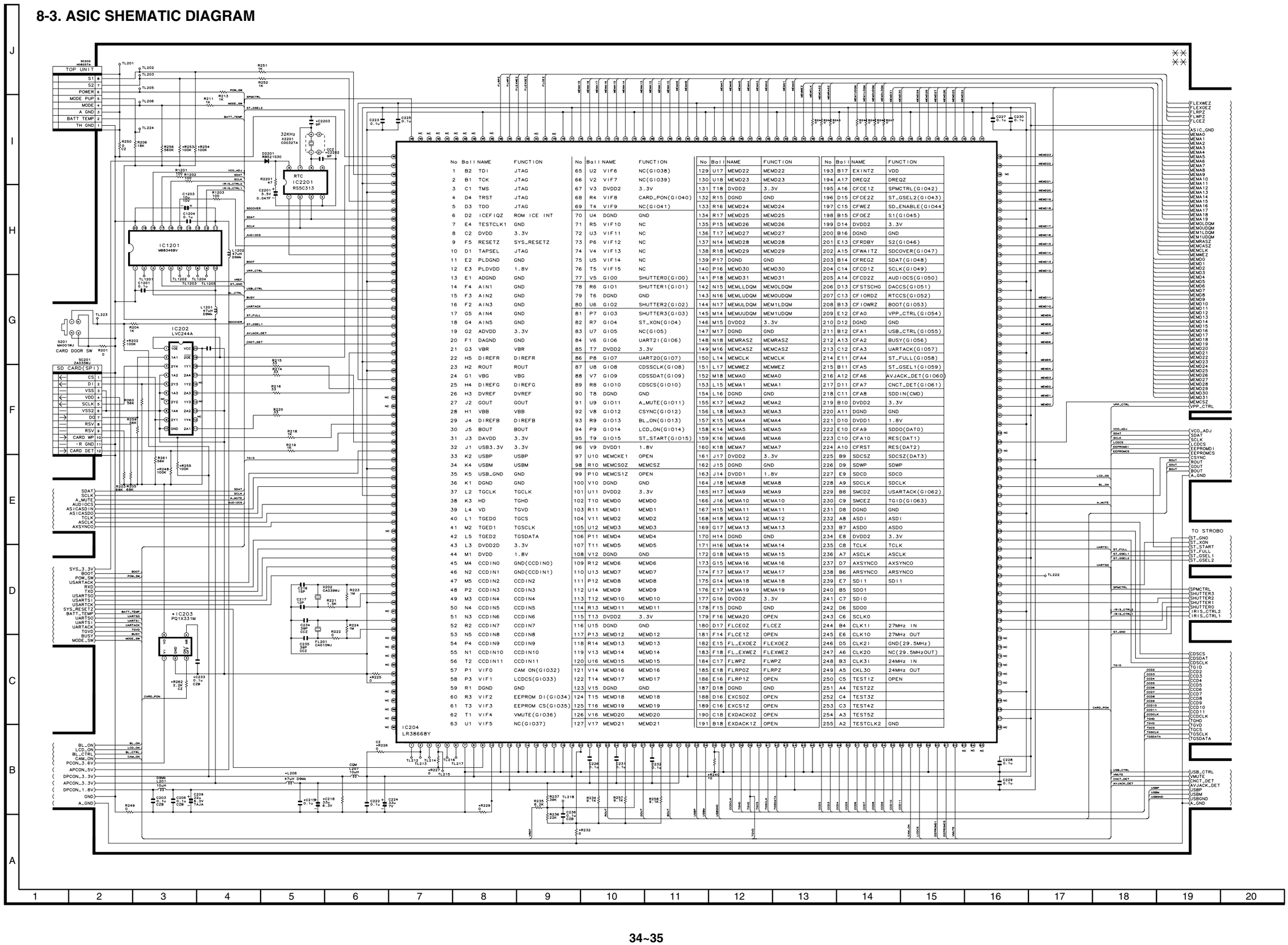
VE-CG30U
VE-CG40U

8-2. OVERALL SCHEMATIC DIAGRAM (VE-CG30U)



VE-CG30U
VE-CG40U

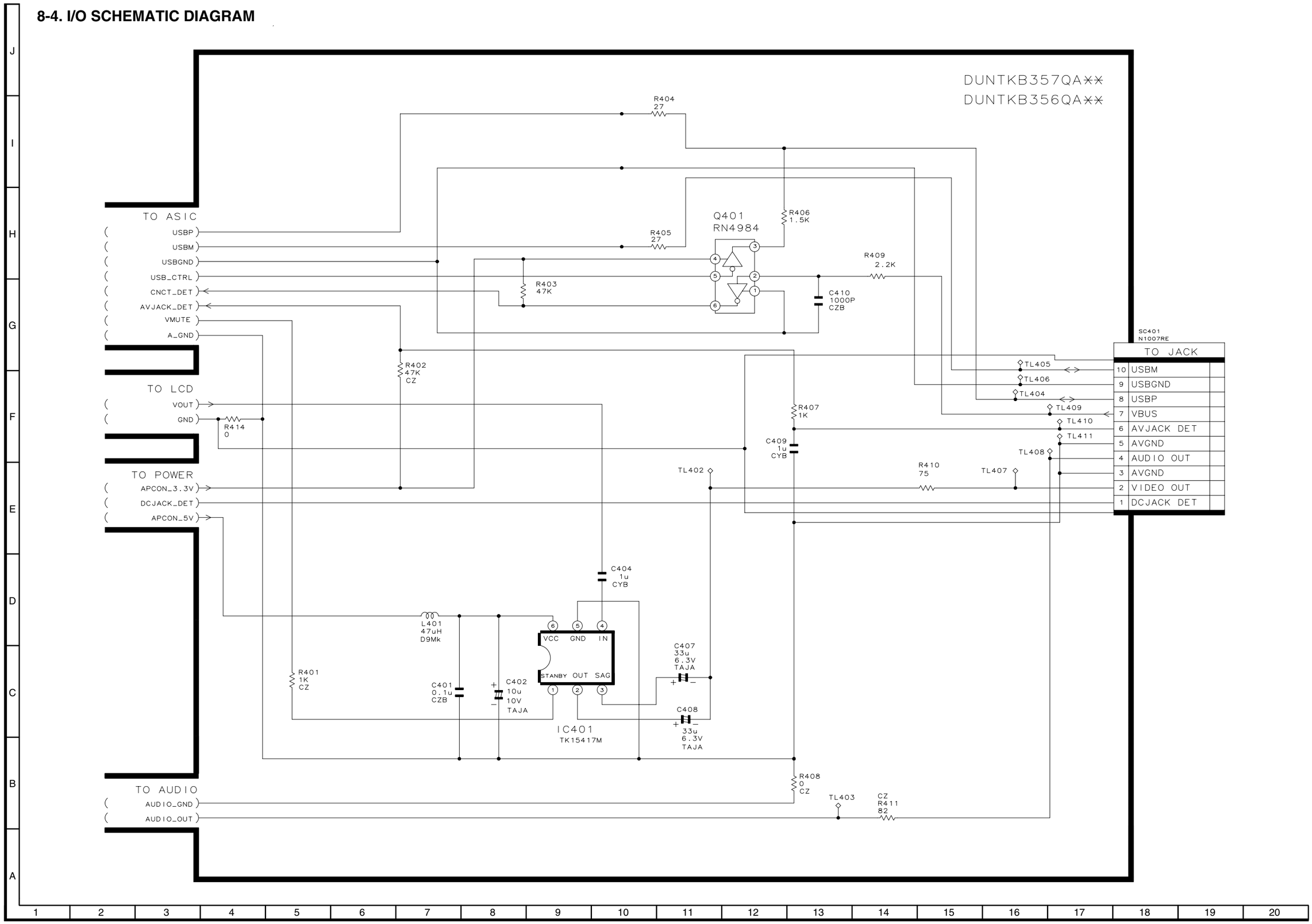
8-3. ASIC SHEMATIC DIAGRAM



No	Ball	NAME	FUNCTION
1	B2	TDI	JTAG
2	B1	TCK	JTAG
3	C1	TMS	JTAG
4	D4	TRST	JTAG
5	D3	TDO	JTAG
6	D2	ICEFIQZ	ROM ICE INT
7	E4	TESTCLK1	GND
8	C2	DVDD	3.3V
9	F5	RESETZ	SYS_RESETZ
10	D1	TAPSEL	JTAG
11	E2	PLDGND	GND
12	E3	PLDVDD	1.8V
13	E1	ADGND	GND
14	F4	AIN1	GND
15	F3	AIN2	GND
16	F2	AIN3	GND
17	G5	AIN4	GND
18	G4	AIN5	GND
19	G2	ADVDD	3.3V
20	F1	DAGND	GND
21	G3	VBR	VBR
22	H5	DIREFR	DIREFR
23	H2	ROUT	ROUT
24	G1	VBG	VBG
25	H4	DIREFG	DIREFG
26	H3	DVREF	DVREF
27	J2	GOUT	GOUT
28	H1	VBB	VBB
29	J4	DIREFB	DIREFB
30	J5	BOUT	BOUT
31	J3	DAVDD	3.3V
32	J1	USB3.3V	3.3V
33	K2	USBP	USBP
34	K4	USBM	USBM
35	K5	USB_GND	GND
36	K1	DGND	GND
37	L2	TGCLK	TGCLK
38	K3	HD	TGHD
39	L4	VD	TGVD
40	L1	TGED0	TGCS
41	M2	TGED1	TGSCLK
42	L5	TGED2	TGSDATA
43	L3	DVDD2D	3.3V
44	M1	DVDD	1.8V
45	M4	CCDIN0	GND(CCDIN0)
46	N2	CCDIN1	GND(CCDIN1)
47	M5	CCDIN2	CCDIN2
48	P2	CCDIN3	CCDIN3
49	M3	CCDIN4	CCDIN4
50	N4	CCDIN5	CCDIN5
51	N3	CCDIN6	CCDIN6
52	R2	CCDIN7	CCDIN7
53	N5	CCDIN8	CCDIN8
54	P4	CCDIN9	CCDIN9
55	N1	CCDIN10	CCDIN10
56	T2	CCDIN11	CCDIN11
57	P1	VIF0	CAM ON(GIO32)
58	P3	VIF1	LCDCS(GIO33)
59	R1	DGND	GND
60	R3	VIF2	EEPROM DI(GIO34)
61	T3	VIF3	EEPROM CS(GIO35)
62	T1	VIF4	VMUTE(GIO36)
63	U1	VIF5	NC(GIO37)
64	U3	VIF6	NC(GIO38)
65	U2	VIF7	NC(GIO39)
66	V2	VIF8	CARD_PON(GIO40)
67	V3	VIF9	NC(GIO41)
68	R4	VIF10	NC
69	T4	VIF11	NC
70	U5	VIF12	NC
71	R5	VIF13	NC
72	U4	VIF14	NC
73	P5	VIF15	NC
74	V4	GIO0	SHUTTER0(GIO00)
75	U6	GIO1	SHUTTER1(GIO01)
76	T5	GIO2	SHUTTER2(GIO02)
77	V5	GIO3	SHUTTER3(GIO03)
78	R6	GIO4	ST_XON(GIO04)
79	T6	GIO5	NC(GIO05)
80	U7	GIO6	UART2I(GIO06)
81	R7	GIO7	UART2O(GIO07)
82	P7	GIO8	CDSSCLK(GIO08)
83	U8	GIO9	CDSSDAT(GIO09)
84	V7	GIO10	CDSCS(GIO10)
85	R8	GIO11	A_MUTE(GIO11)
86	T7	GIO12	CSYNC(GIO12)
87	V8	GIO13	BL_ON(GIO13)
88	U9	GIO14	LCD_ON(GIO14)
89	R9	GIO15	ST_START(GIO15)
90	T8	DGND	GND
91	U9	DVDD1	1.8V
92	V8	DVDD2	3.3V
93	R9	MEMCKE1	OPEN
94	P9	MEMCSOZ	MEMCSZ
95	T9	MEMCS1Z	OPEN
96	V9	DGND	GND
97	U10	DVDD1	1.8V
98	R10	MEMA8	MEMA8
99	P10	MEMA9	MEMA9
100	V10	MEMA10	MEMA10
101	U11	MEMA11	MEMA11
102	T10	MEMA12	MEMA12
103	R11	MEMA13	MEMA13
104	V11	DGND	GND
105	U12	MEMA14	MEMA14
106	P11	MEMA15	MEMA15
107	T11	MEMA16	MEMA16
108	V12	MEMA17	MEMA17
109	R12	MEMA18	MEMA18
110	U13	MEMA19	MEMA19
111	P12	DVDD2	3.3V
112	U14	DGND	GND
113	T12	MEMA20	OPEN
114	R13	FLCE0Z	FLCEZ
115	T13	FLCE1Z	OPEN
116	U15	FL_EXOEZ	FLEXOEZ
117	P13	FL_EXWEZ	FLEXWEZ
118	R14	FLWPZ	FLWPZ
119	V13	FLRP0Z	FLRPZ
120	U16	FLRP1Z	OPEN
121	V14	EXCSOZ	OPEN
122	T14	EXCS1Z	OPEN
123	V15	EXDACK0Z	OPEN
124	T15	EXDACK1Z	OPEN
125	T16	TESTCLK2	GND
126	V16	TEST1Z	OPEN
127	V17	TEST2Z	
128	U17	TEST3Z	
129	U17	MEMD22	MEMD22
130	U18	MEMD23	MEMD23
131	T18	DVDD2	3.3V
132	R15	DGND	GND
133	R16	MEMD24	MEMD24
134	R17	MEMD25	MEMD25
135	P15	MEMD26	MEMD26
136	T17	MEMD27	MEMD27
137	N14	MEMD28	MEMD28
138	R18	MEMD29	MEMD29
139	P17	DGND	GND
140	P16	MEMD30	MEMD30
141	P18	MEMD31	MEMD31
142	N15	MEMLLDQM	MEMOLDQM
143	N16	MEMLUDQM	MEMOUDQM
144	N17	MEMULDQM	MEM1LDQM
145	M14	MEMUUDQM	MEM1UDQM
146	M15	DVDD2	3.3V
147	M17	DGND	GND
148	N18	MEMRASZ	MEMRASZ
149	M16	MEMCASZ	MEMCASZ
150	L14	MEMCLK	MEMCLK
151	L17	MEMWEZ	MEMWEZ
152	M18	MEMA0	MEMA0
153	L15	MEMA1	MEMA1
154	L16	DGND	GND
155	K17	MEMA2	MEMA2
156	L18	MEMA3	MEMA3
157	K15	MEMA4	MEMA4
158	K14	MEMA5	MEMA5
159	K16	MEMA6	MEMA6
160	K18	MEMA7	MEMA7
161	J17	DVDD2	3.3V
162	J15	DGND	GND
163	J14	DVDD1	1.8V
164	J18	MEMA8	MEMA8
165	H17	MEMA9	MEMA9
166	J16	MEMA10	MEMA10
167	H15	MEMA11	MEMA11
168	H18	MEMA12	MEMA12
169	G17	MEMA13	MEMA13
170	H14	DGND	GND
171	H16	MEMA14	MEMA14
172	G18	MEMA15	MEMA15
173	G15	MEMA16	MEMA16
174	F17	MEMA17	MEMA17
175	G14	MEMA18	MEMA18
176	E17	MEMA19	MEMA19
177	G16	DVDD2	3.3V
178	F15	DGND	GND
179	F16	MEMA20	OPEN
180	D17	FLCE0Z	FLCEZ
181	F14	FLCE1Z	OPEN
182	E15	FL_EXOEZ	FLEXOEZ
183	F18	FL_EXWEZ	FLEXWEZ
184	C17	FLWPZ	FLWPZ
185	E18	FLRP0Z	FLRPZ
186	E16	FLRP1Z	OPEN
187	D18	DGND	GND
188	D16	EXCS0Z	OPEN
189	C16	EXCS1Z	OPEN
190	C18	EXDACK0Z	OPEN
191	B18	EXDACK1Z	OPEN
193	B17	EXINTZ	VDD
194	A17	DREQZ	DREQZ
195	A16	CFCE1Z	SPMCTRL(GIO42)
196	D15	CFCE2Z	ST_GSEL2(GIO43)
197	C15	CFWEZ	SD_ENABLE(GIO44)
198	B15	CFOEZ	S1(GIO45)
199	D14	DVDD2	3.3V
200	B16	DGND	GND
201	E13	CFRDBY	S2(GIO46)
202	A15	CFWAITZ	SDCOVER(GIO47)
203	B14	CFREGZ	SDAT(GIO48)
204	C14	CFCD1Z	SCLK(GIO49)
205	A14	CFCD2Z	AUDIOCS(GIO50)
206	D13	CFSTSCHG	DACCS(GIO51)
207	C13	CFIORDZ	RTCCS(GIO52)
208	B13	CFIOWRZ	BOOT(GIO53)
209	E12	CFA0	VPP_CTRL(GIO54)
210	D12	DGND	GND
211	B12	CFA1	USB_CTRL(GIO55)
212	A13	CFA2	BUSY(GIO56)
213	C12	CFA3	UARTACK(GIO57)
214	E11	CFA4	ST_FULL(GIO58)
215	B11	CFA5	ST_GSEL1(GIO59)
216	A12	CFA6	AVJACK_DET(GIO60)
217	D11	CFA7	CNCT_DET(GIO61)
218	C11	CFA8	SDDIN(CMD)
219	B10	DVDD2	3.3V
220	A11	DGND	GND
221	D10	DVDD1	1.8V
222	E10	CFA9	SDDO(DAT0)
223	C10	CFA10	RES(DAT1)
224	A10	CFRST	RES(DAT2)
225	B9	SDCSZ	SDCSZ(DAT3)
226	D9	SDWP	SDWP
227	E9	SDCD	SDCD
228	A9	SDCLK	SDCLK
229	B8	SMCDZ	USARTACK(GIO62)
230	C9	SMCEZ	TGID(GIO63)
231	D8	DGND	GND
232	A8	ASDI	ASDI
233	B7	ASDO	ASDO
234	E8	DVDD2	3.3V
235	C8	TCLK	TCLK
236	A7	ASCLK	ASCLK
237	D7	AXSYNCO	AXSYNCO
238	B6	ARSYNCO	ARSYNCO
239	E7	SDI1	SDI1
240	B5	SDO1	
241	C7	SDI0	
242	D6	SDO0	
243	C6	SCLK0	
244	B4	CLK1I	27MHz IN
245	E6	CLK1O	27MHz OUT
246	D5	CLK2I	GND(29.5MHz)
247	A6	CLK2O	NC(29.5MHzOUT)
248	B3	CLK3I	24MHz IN
249	A5	CKL3O	24MHz OUT
250	C5	TEST1Z	OPEN
251	A4	TEST2Z	
252	C4	TEST3Z	
253	C3	TEST4Z	
254	A3	TEST5Z	
255	A2	TESTCLK2	GND

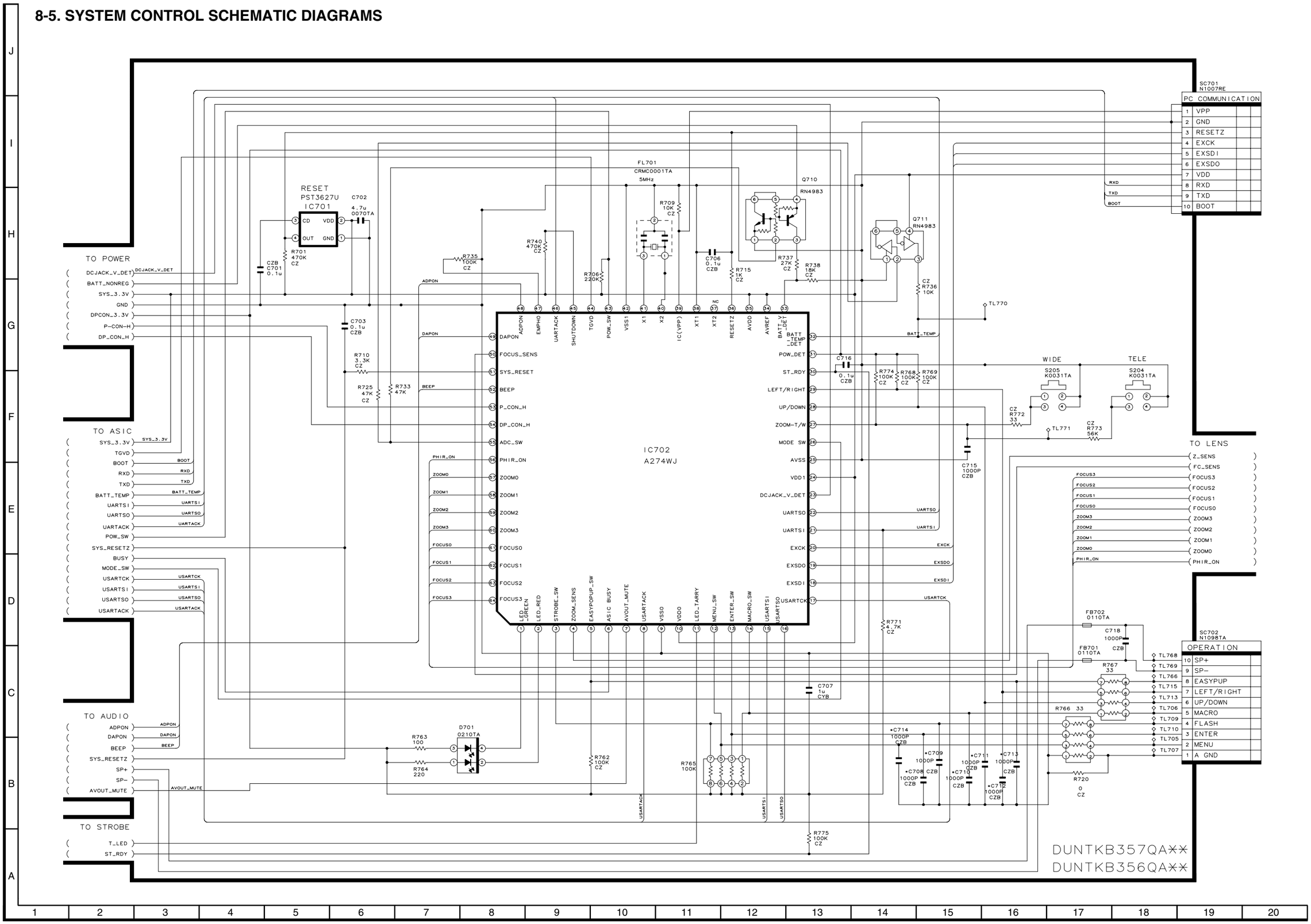
VE-CG30U
VE-CG40U

8-4. I/O SCHEMATIC DIAGRAM



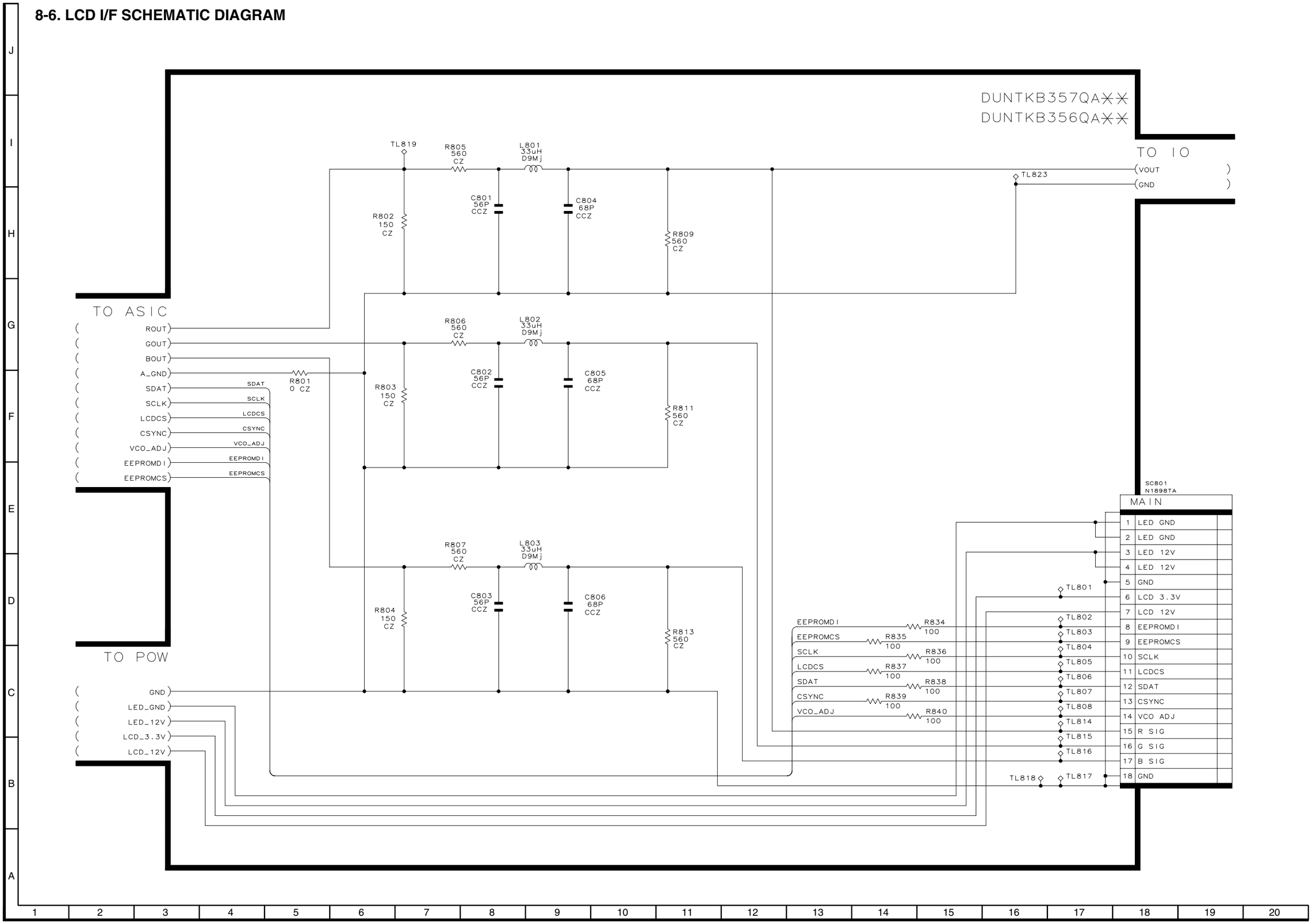
VE-CG30U
VE-CG40U

8-5. SYSTEM CONTROL SCHEMATIC DIAGRAMS



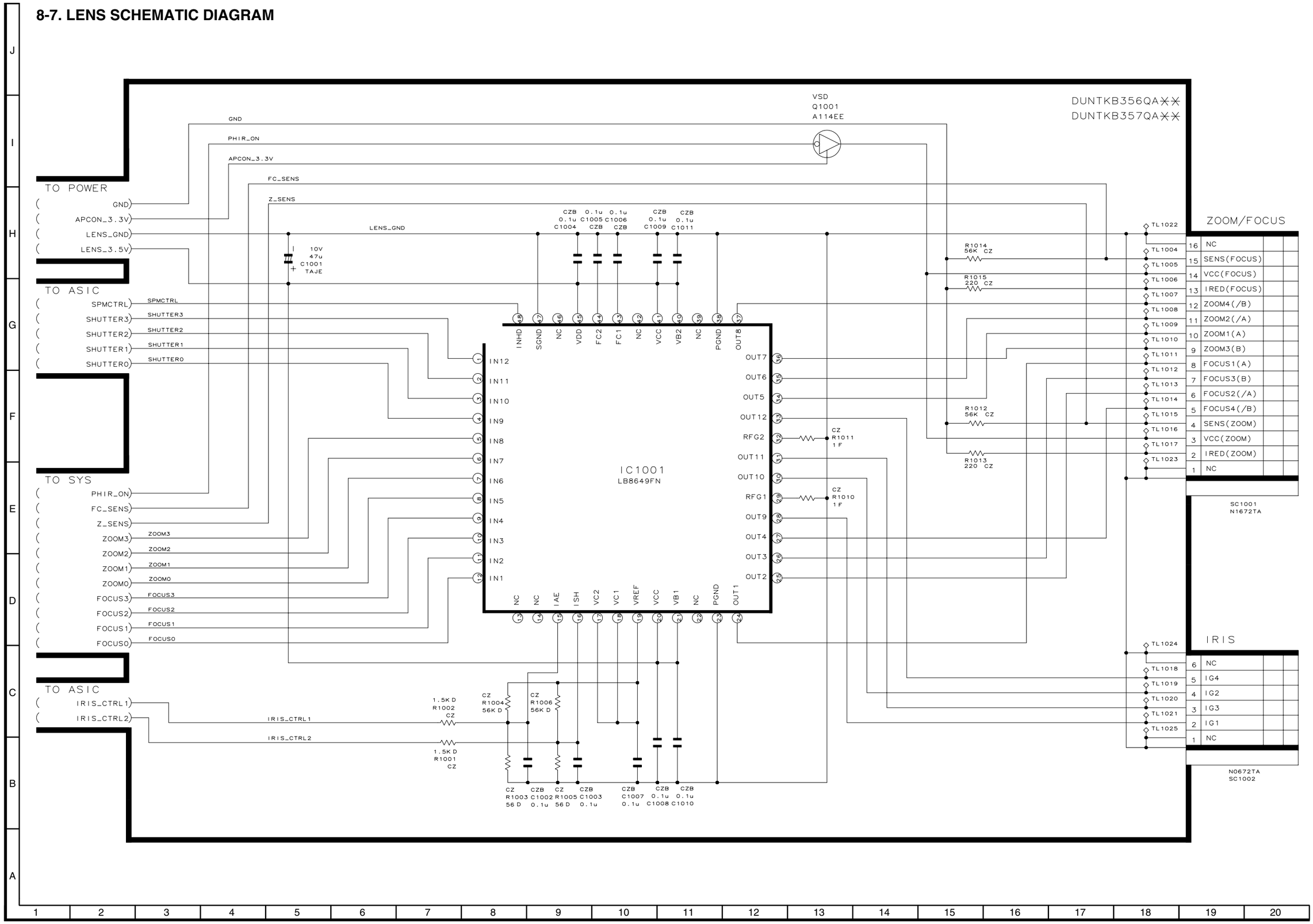
VE-CG30U
VE-CG40U

8-6. LCD I/F SCHEMATIC DIAGRAM



VE-CG30U
VE-CG40U

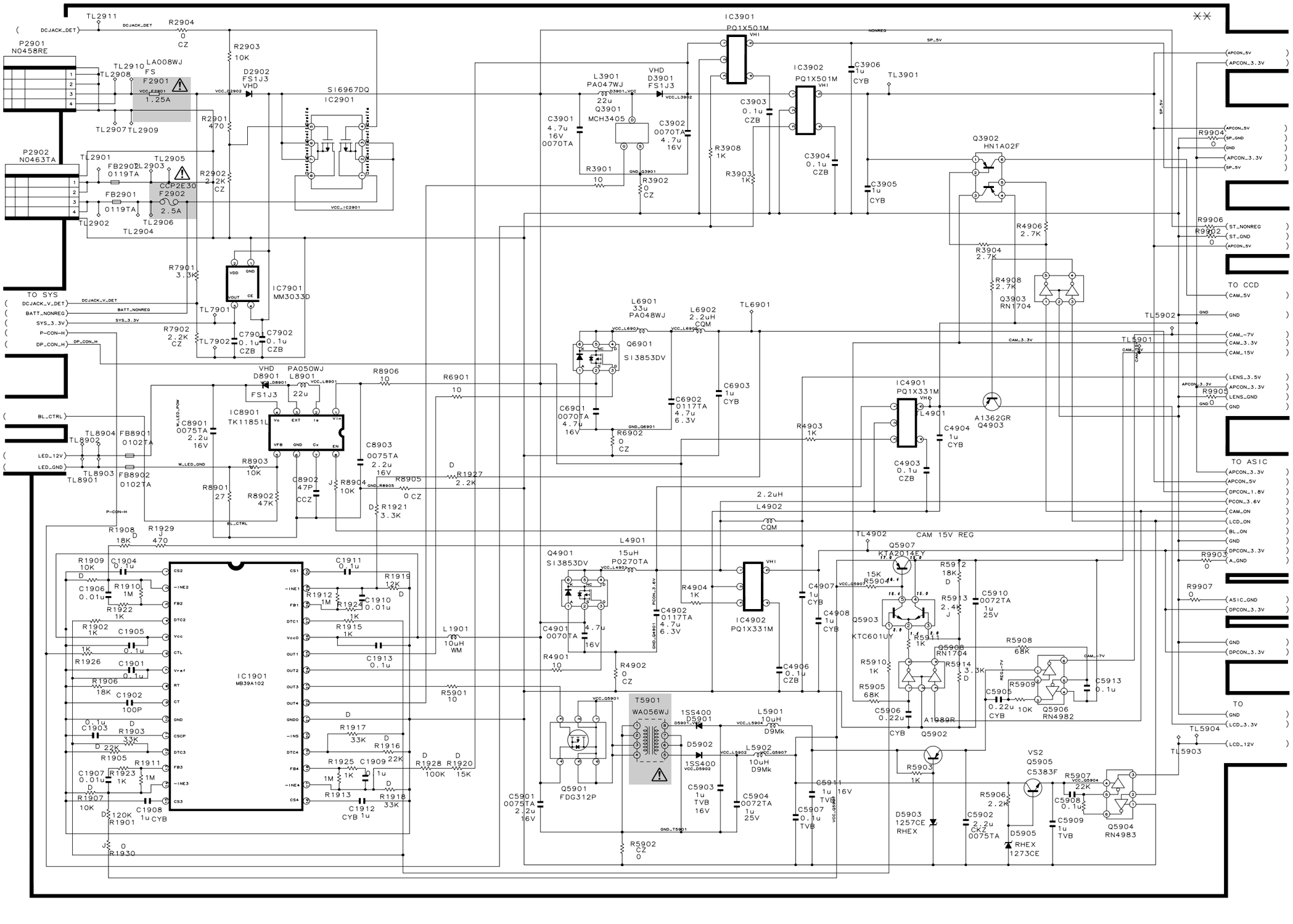
8-7. LENS SCHEMATIC DIAGRAM



VE-CG30U
VE-CG40U

⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS

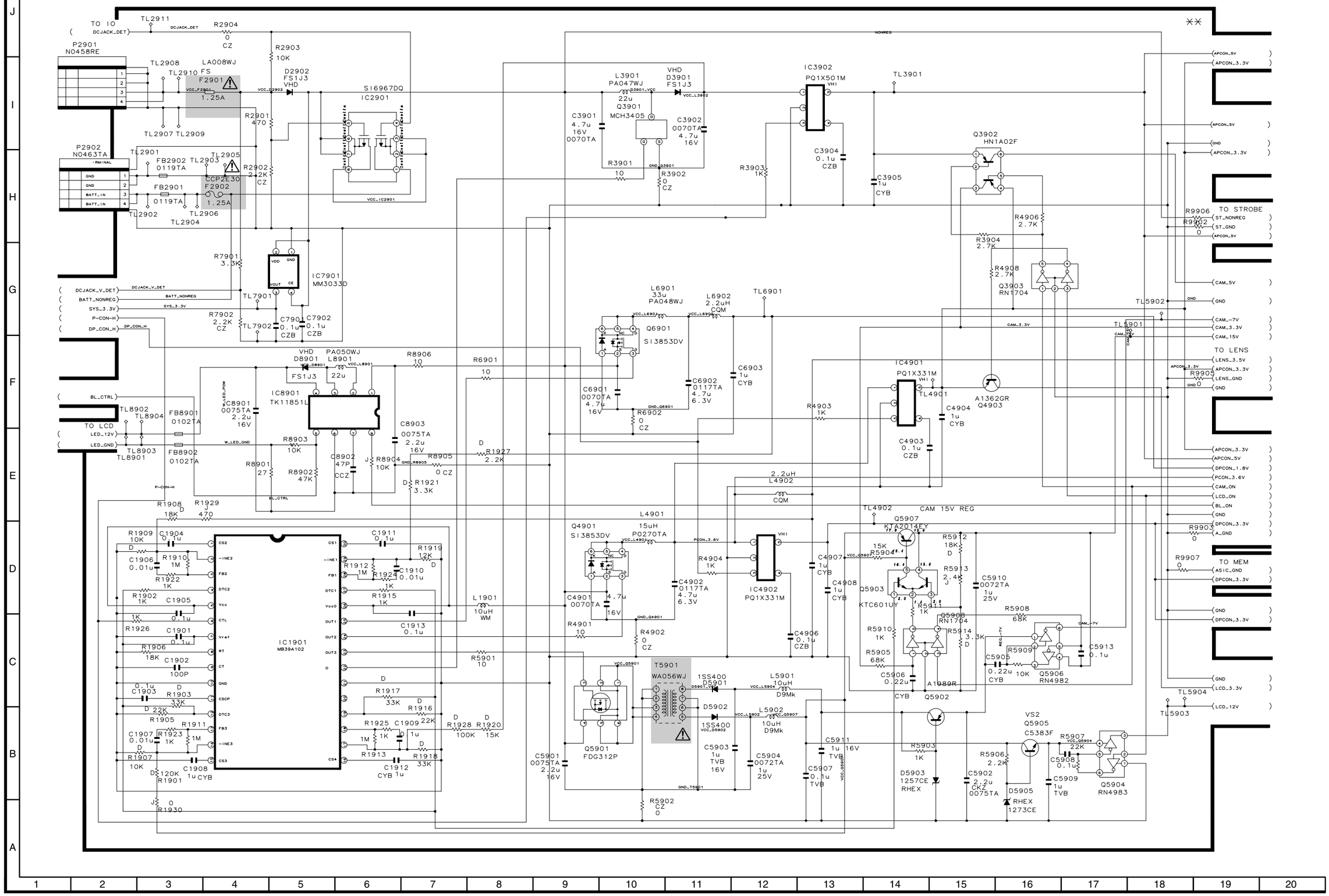
8-8. POWER SCHEMATIC DIAGRAM (VE-CG40U)



VE-CG30U
VE-CG40U

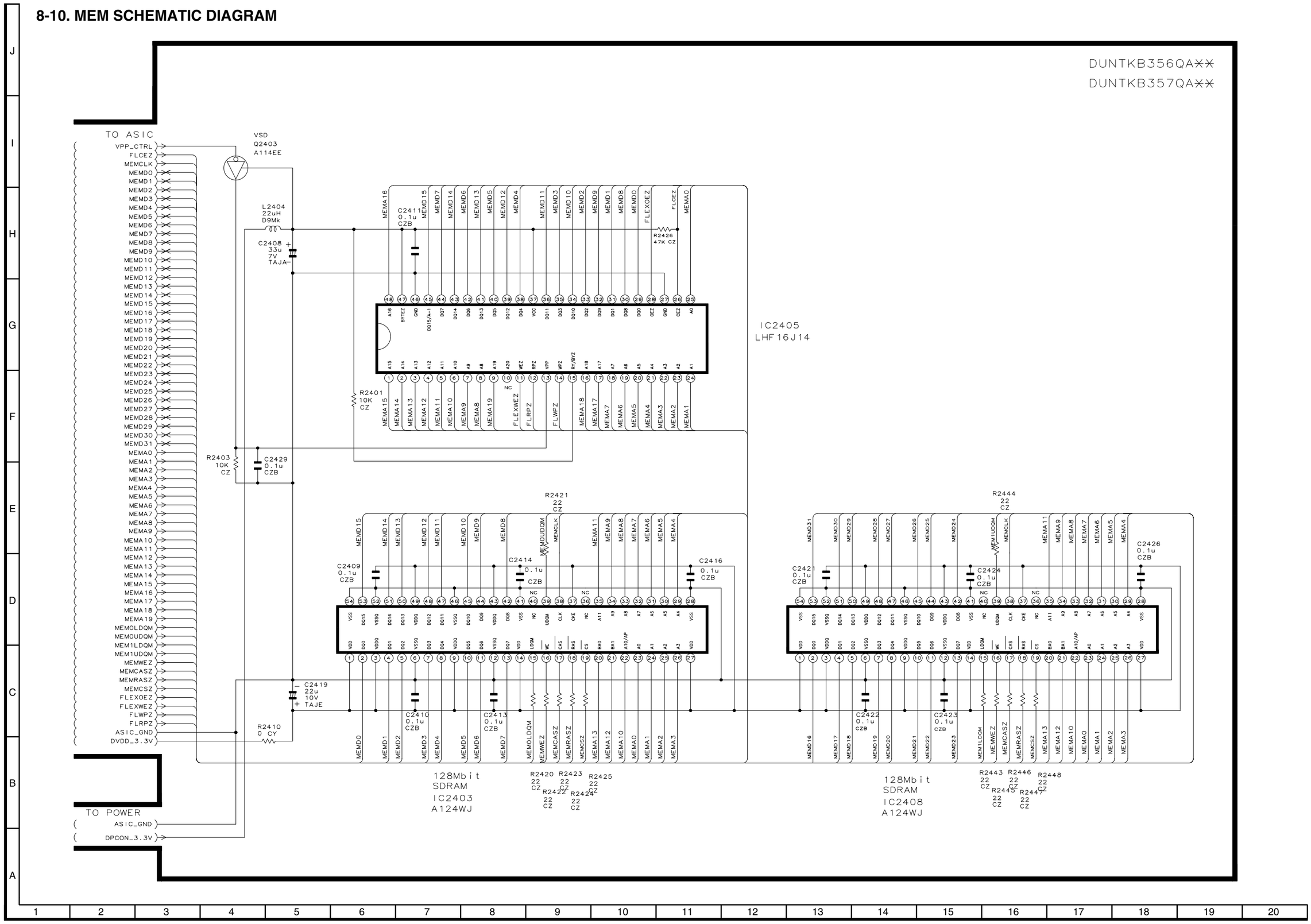
⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS

8-9. POWER SCHEMATIC DIAGRAM (VE-CG30U)



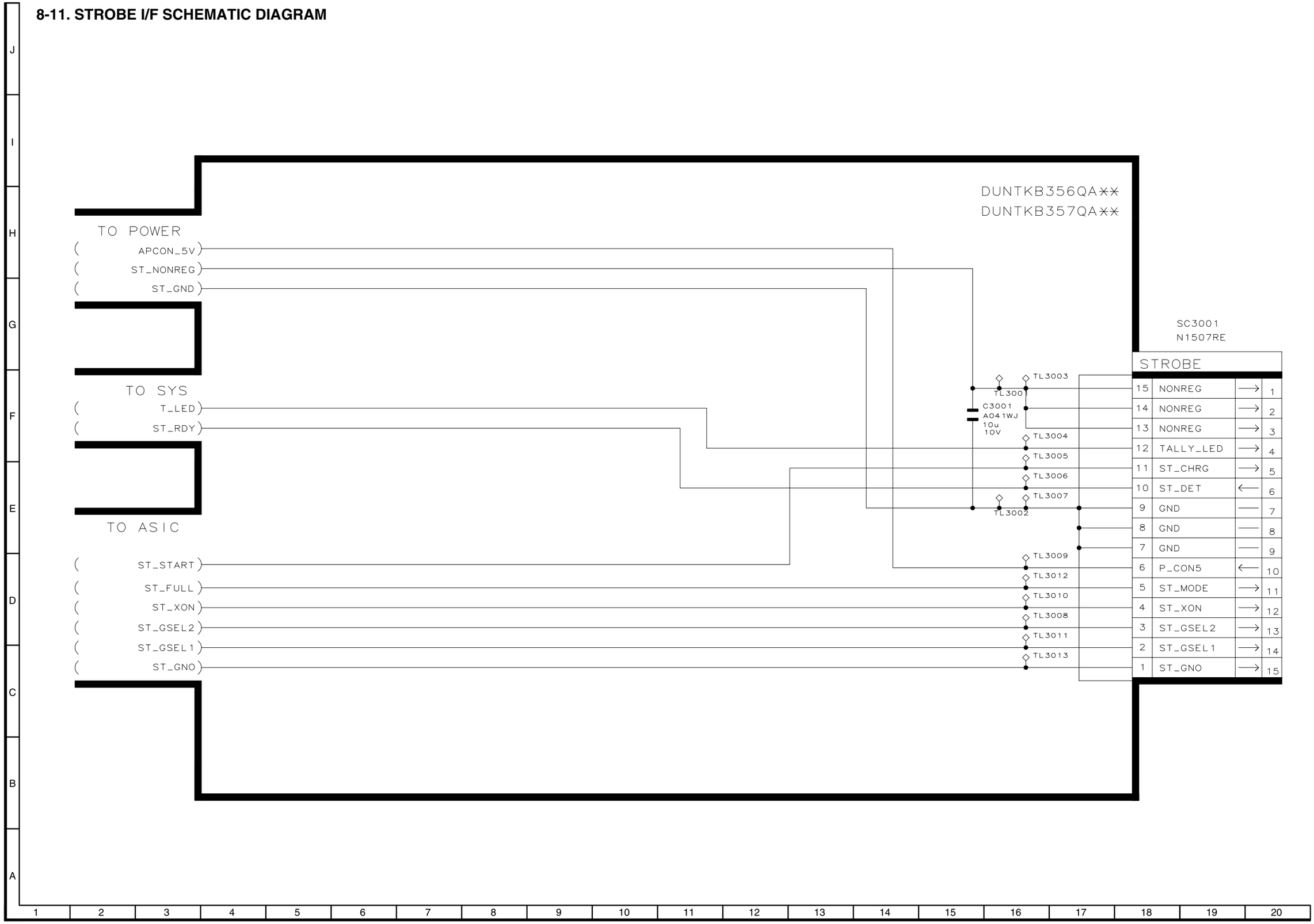
VE-CG30U
VE-CG40U

8-10. MEM SCHEMATIC DIAGRAM



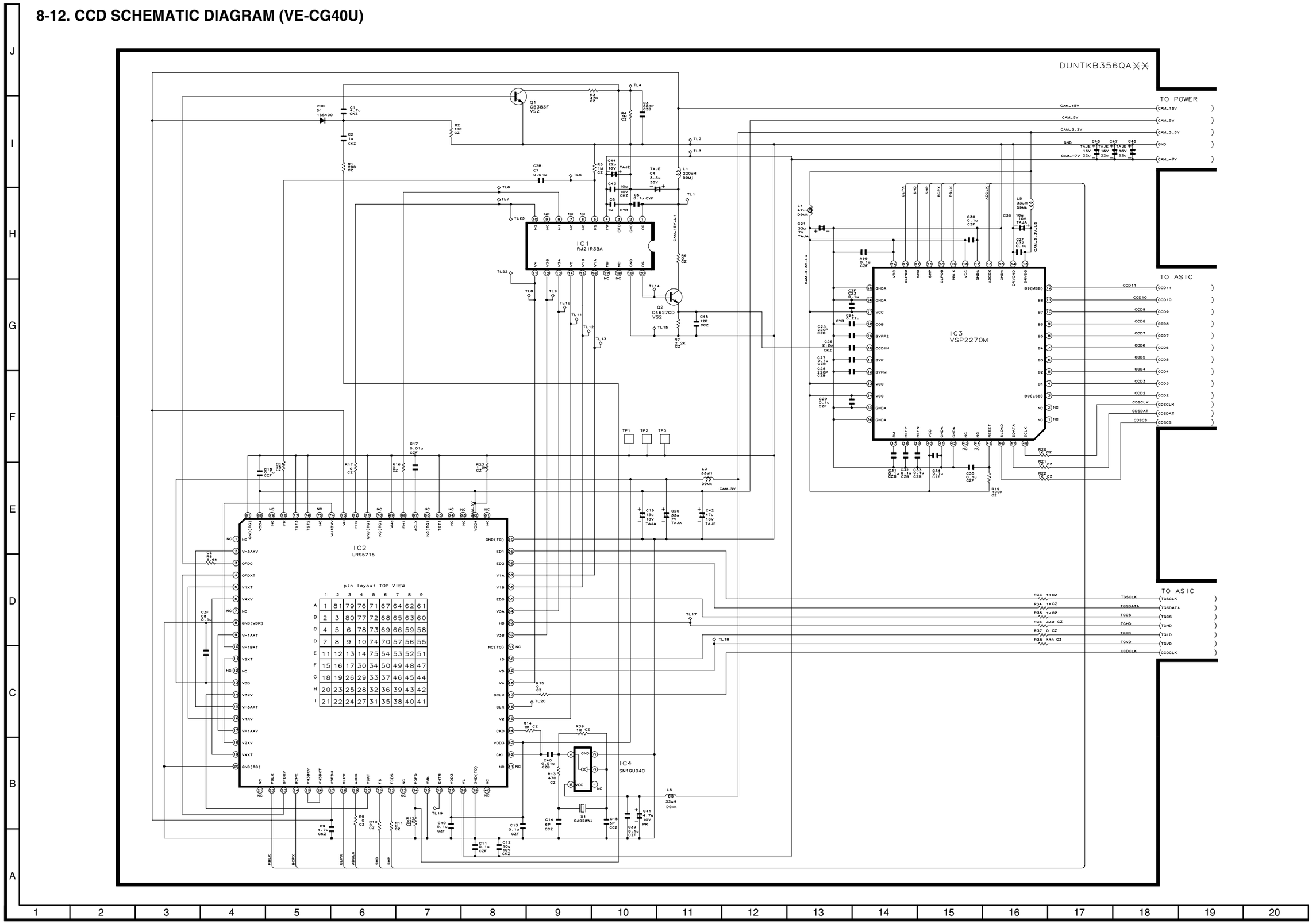
VE-CG30U
VE-CG40U

8-11. STROBE I/F SCHEMATIC DIAGRAM



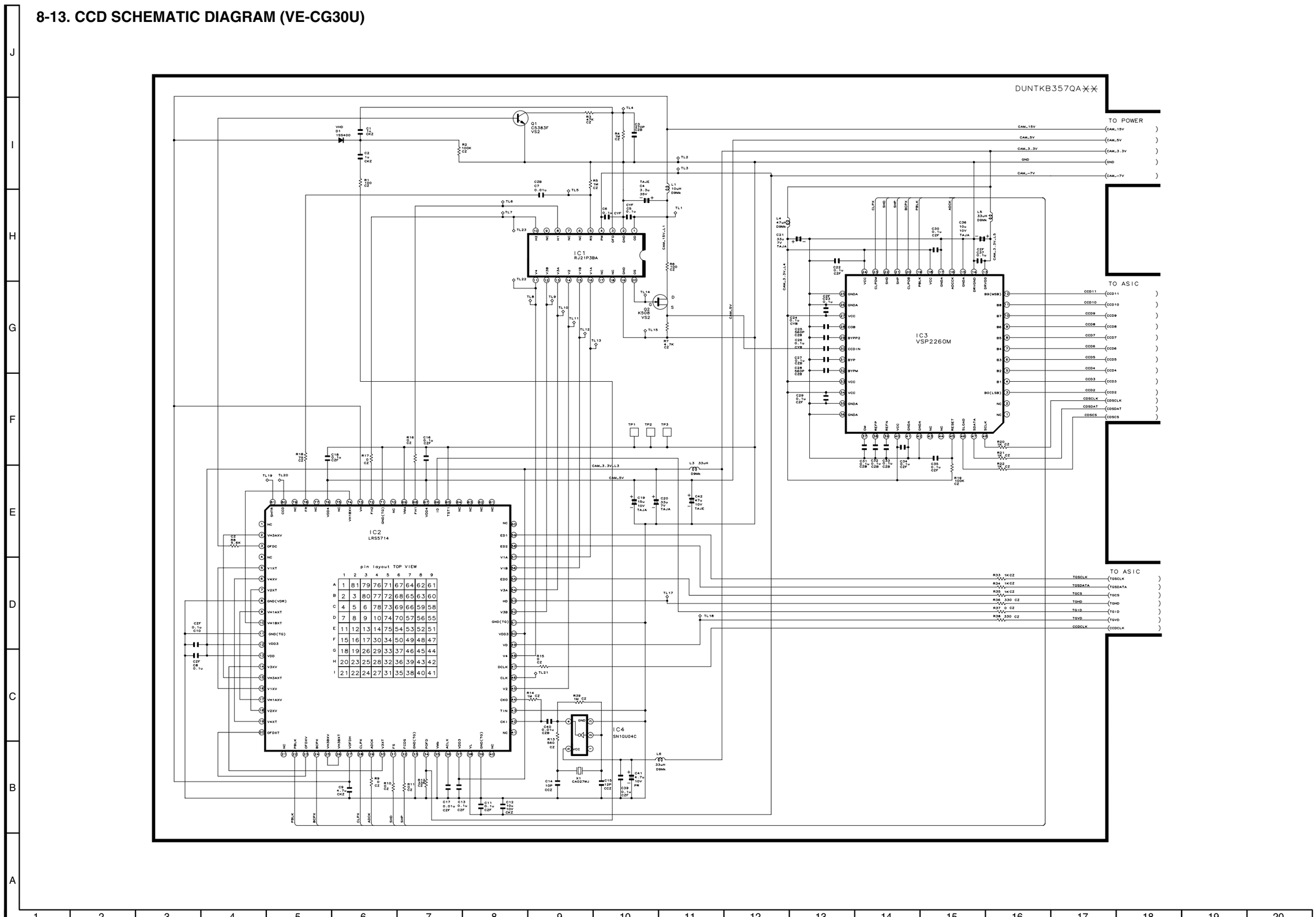
VE-CG30U
VE-CG40U

8-12. CCD SCHEMATIC DIAGRAM (VE-CG40U)

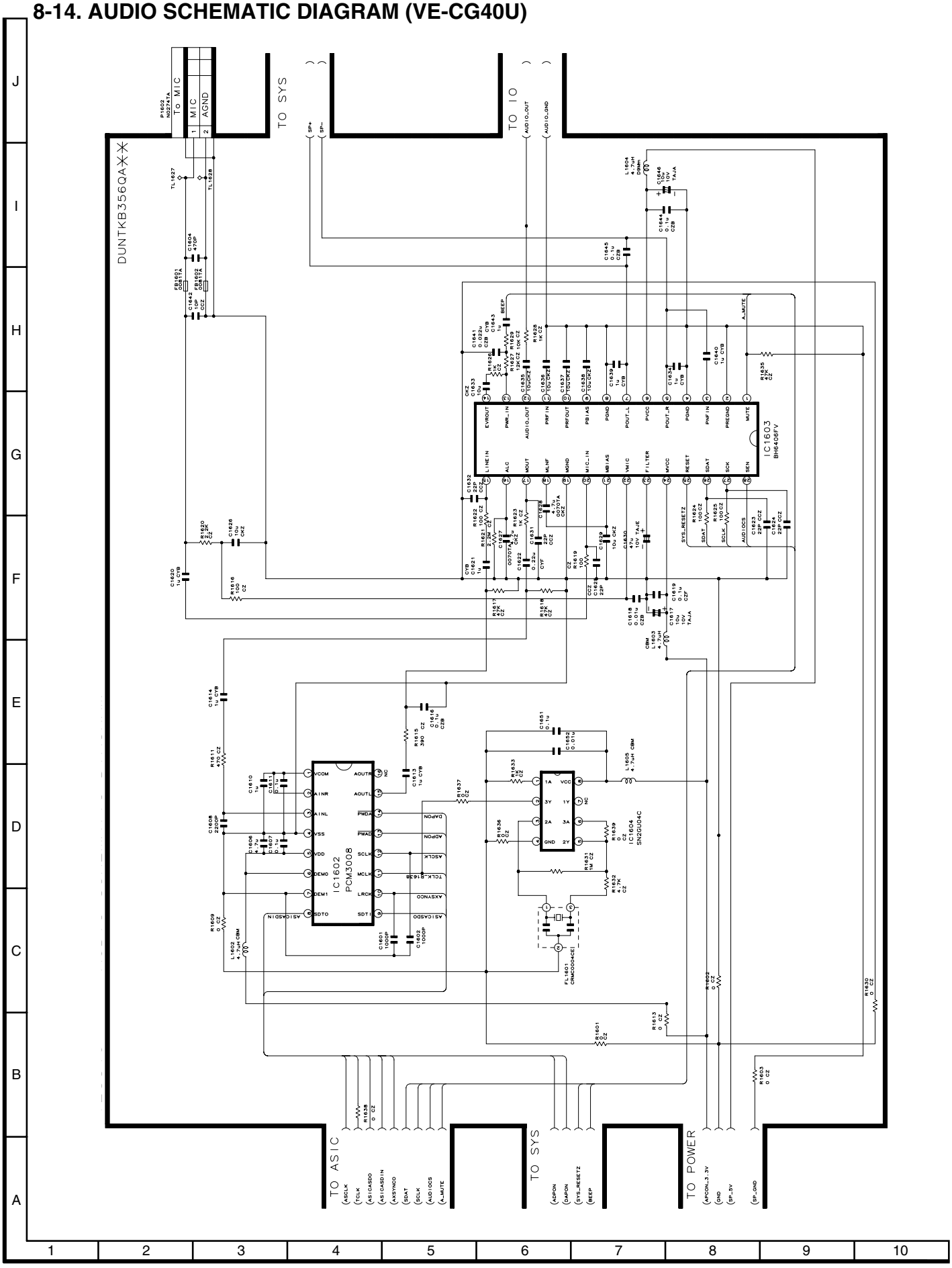


VE-CG30U
VE-CG40U

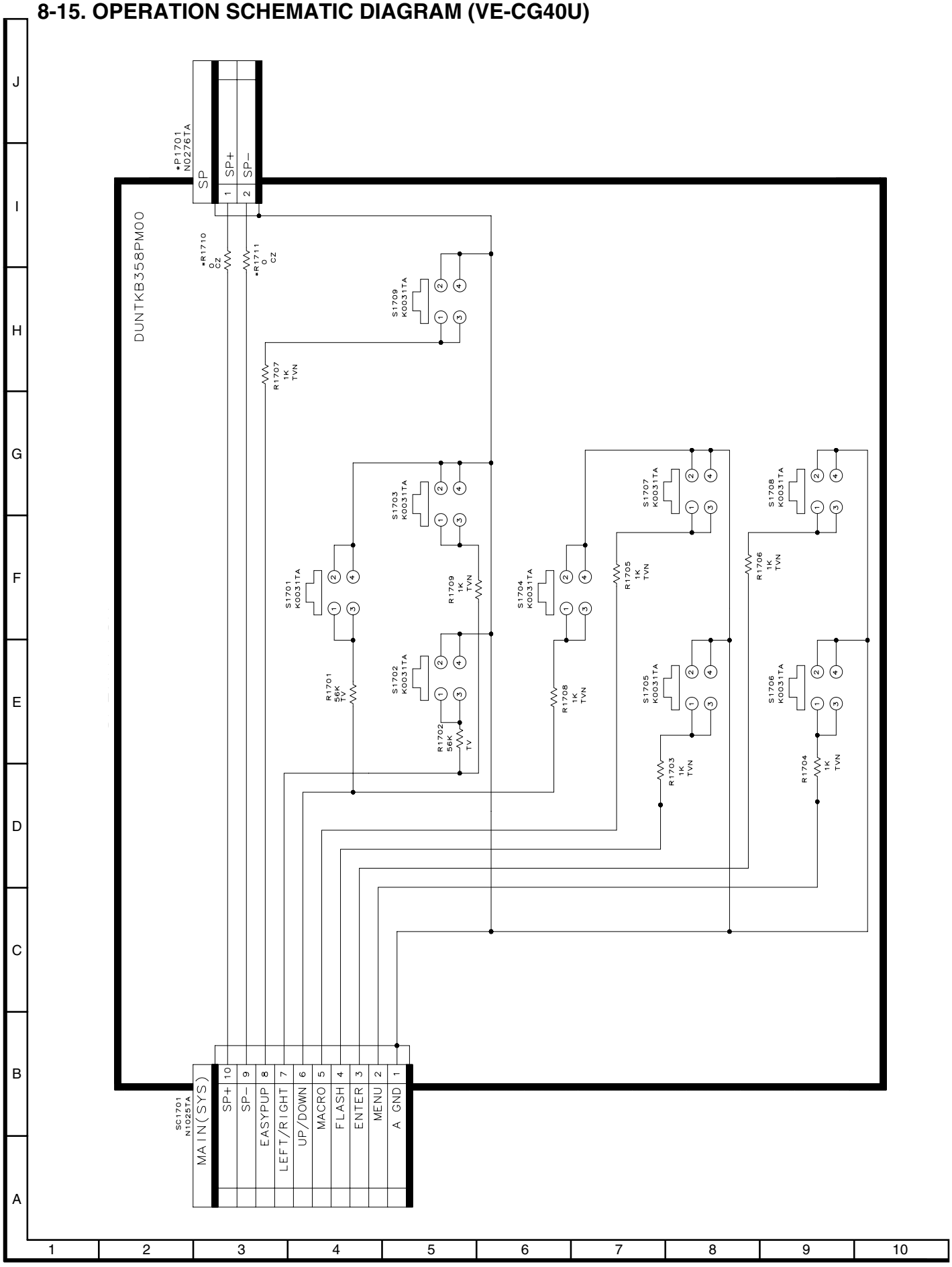
8-13. CCD SCHEMATIC DIAGRAM (VE-CG30U)



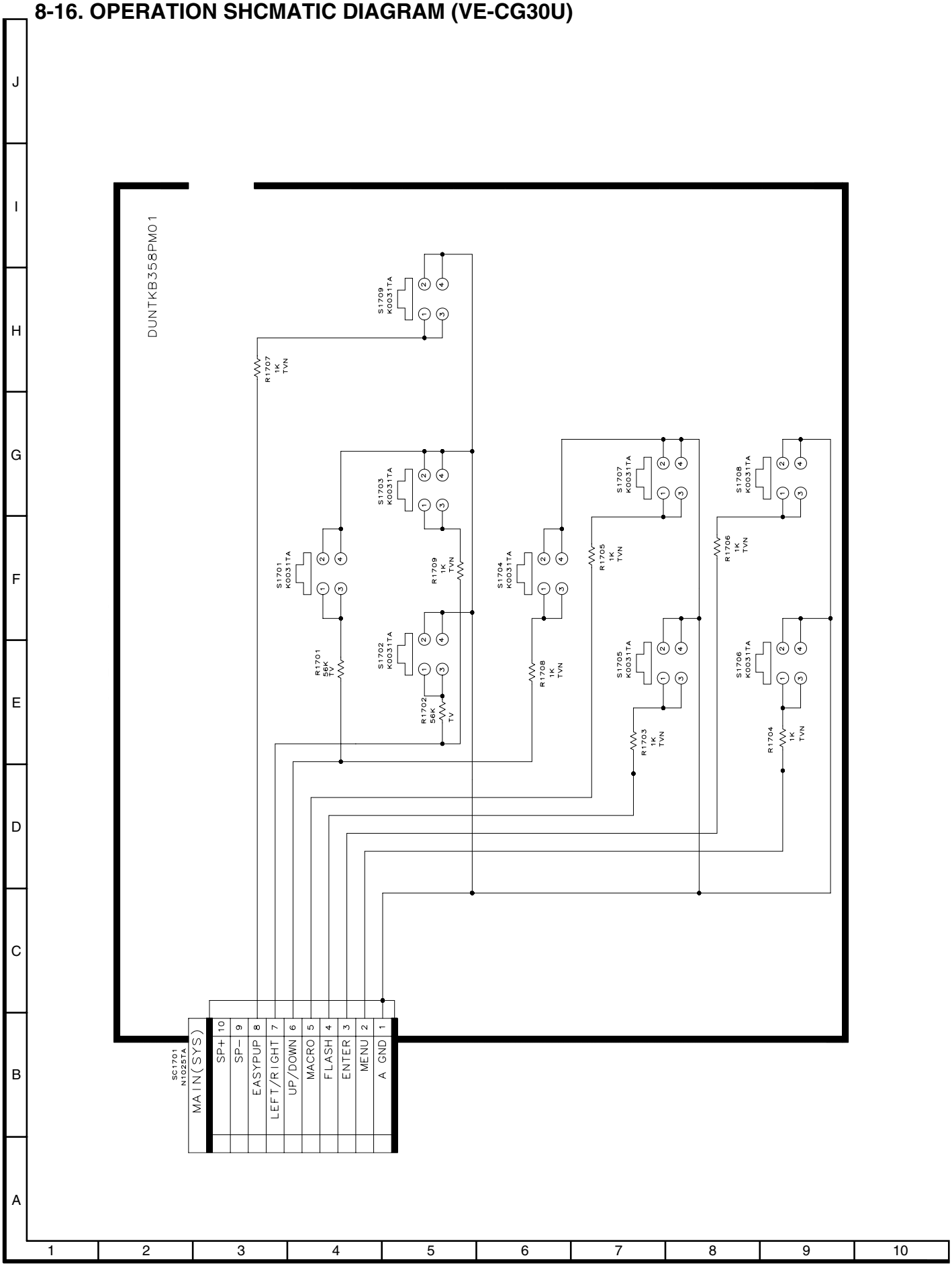
8-14. AUDIO SCHEMATIC DIAGRAM (VE-CG40U)



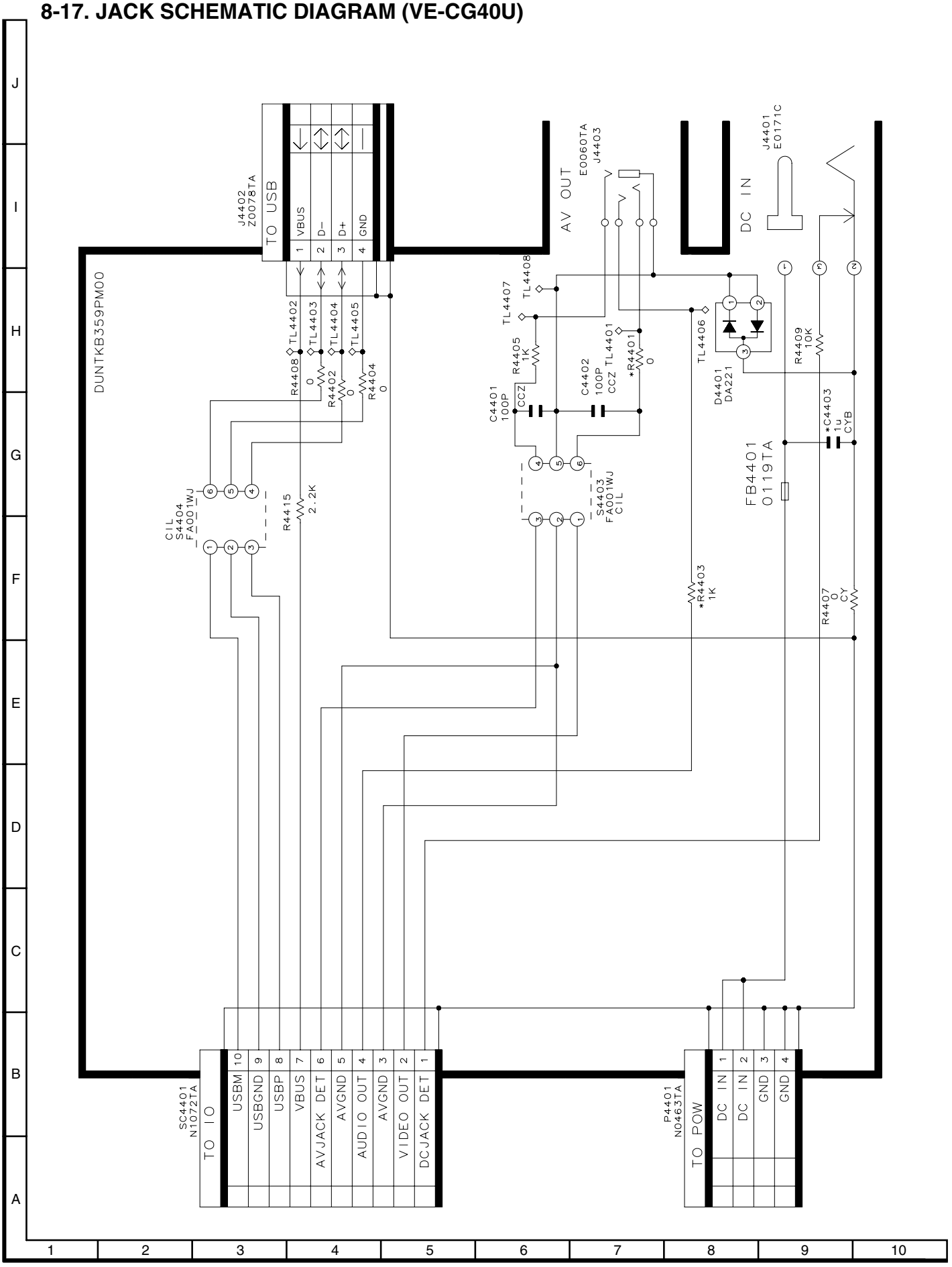
8-15. OPERATION SCHEMATIC DIAGRAM (VE-CG40U)



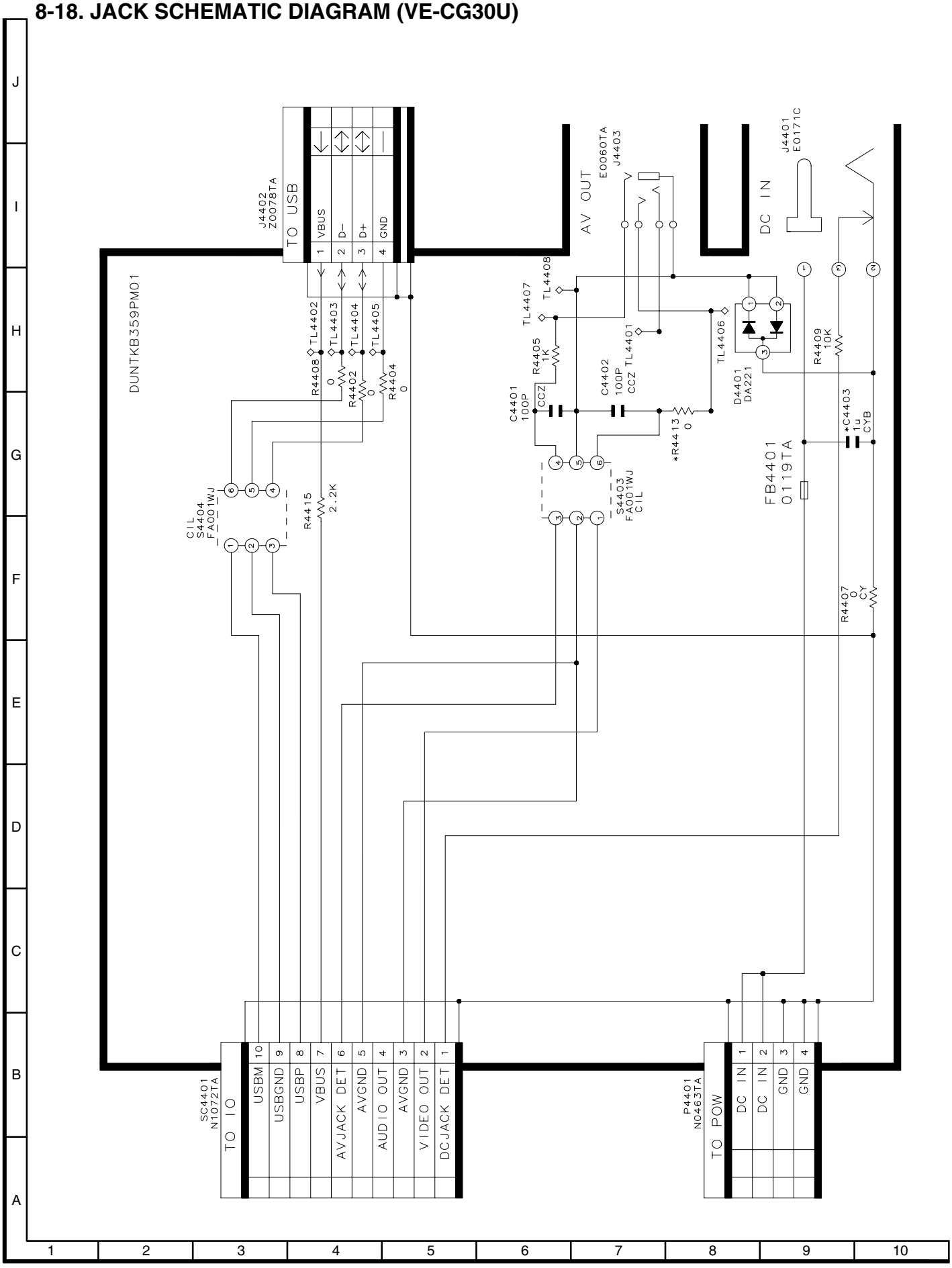
8-16. OPERATION SHCMATIC DIAGRAM (VE-CG30U)



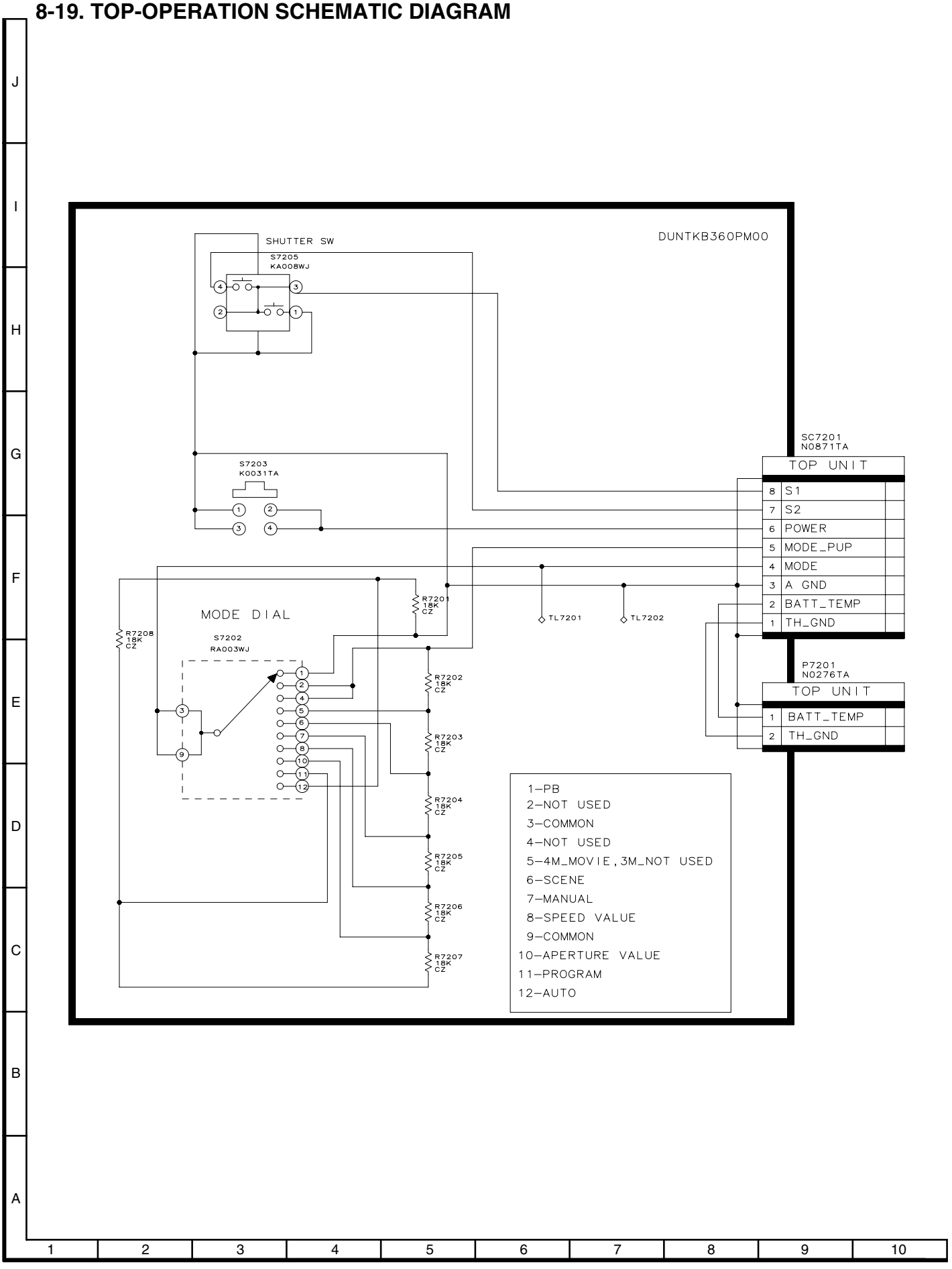
8-17. JACK SCHEMATIC DIAGRAM (VE-CG40U)



8-18. JACK SCHEMATIC DIAGRAM (VE-CG30U)

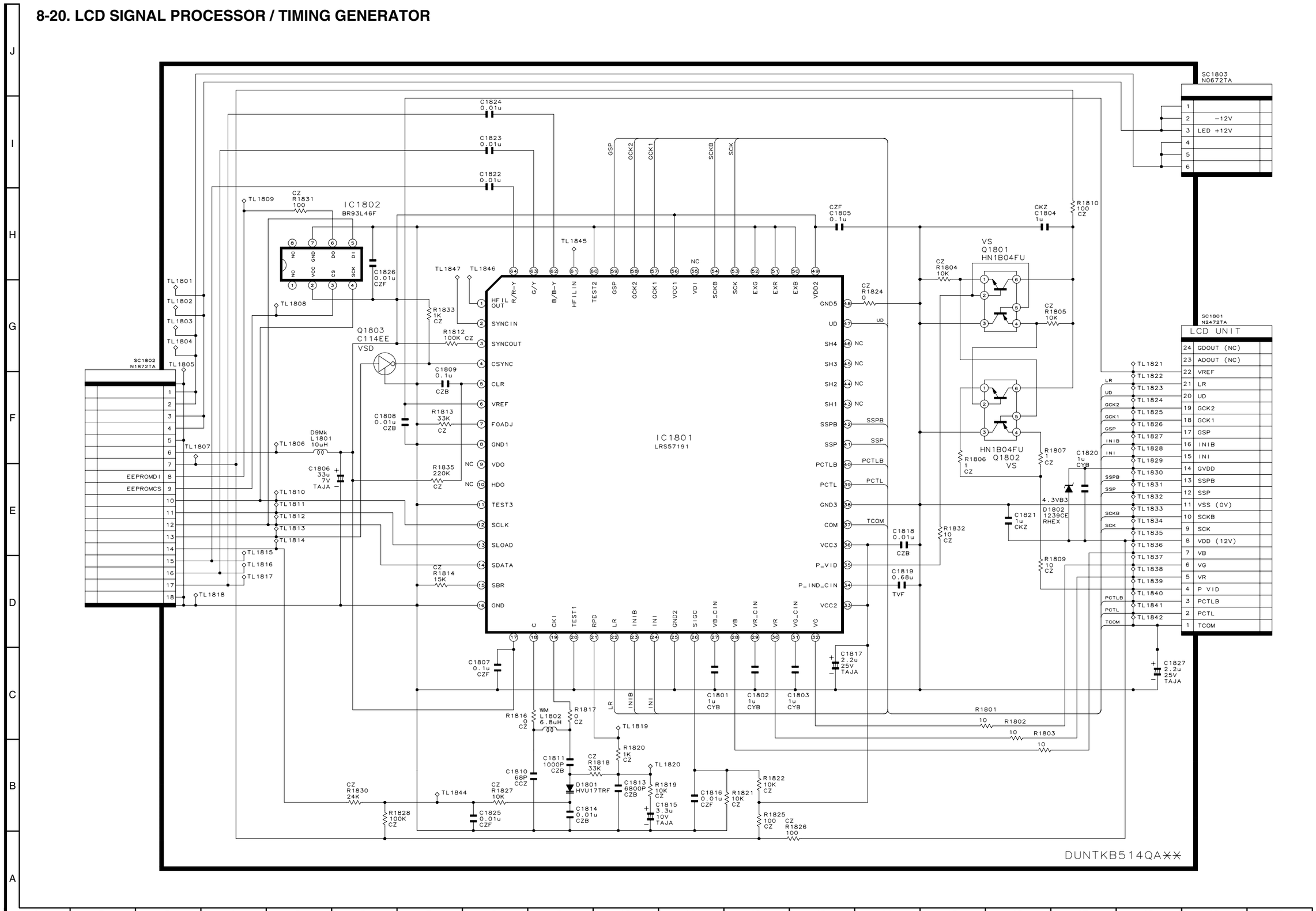


8-19. TOP-OPERATION SCHEMATIC DIAGRAM

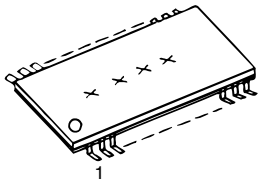


VE-CG30U
VE-CG40U

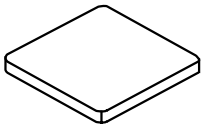
8-20. LCD SIGNAL PROCESSOR / TIMING GENERATOR



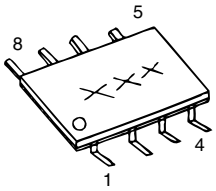
9. SEMICONDUCTOR LEAD IDENTIFICATION



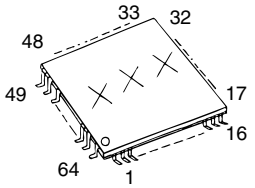
RH-iXA124WJZZQ(54pin)
VHiBH6406FV-1Y(28pin)
VHiLVC244T+-1Y(20pin)
VHiMB39A102-1Y(30pin)
VHiMB8346BV-1Y(20pin)
VHiPCM3008+-1Y(16pin)



CHiLHF16J14-3 (48 ball)
CHiLHF16J14-4 (48 ball)
VHiLR38668Y-1Q (260 ball)
VHiLRS5714+-1Q (81 ball)
VHiLRS5715+-1Q (81 ball)

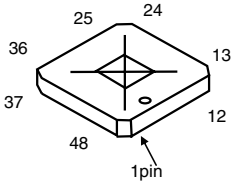


VHiRS5C313/-1Y
VHiSN2GU04C-1Y
VHiTK11851L-1Y
VSSi6967DQ+-1Y
VHiBR93L46F-1Y

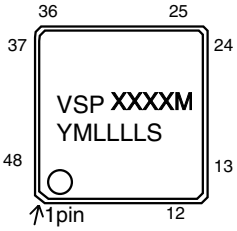


(64pin)

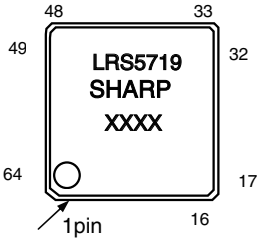
RH-iXA274WJZZQ



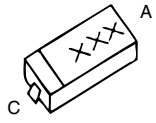
VHiLB8649FN-1Y (48 pin)



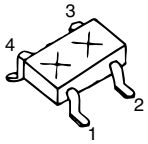
VHiVSP2260M-1Y
VHiVSP2270M-1Y



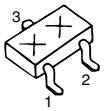
VHiLRS57191-1Q



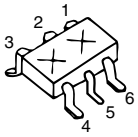
RH-EX1257CEZZY
RH-EX1273CEZZY
VHD1SS400++-1Y
VHDFS1J3///-1Y
VHDRB521S30-1Y
RH-EX1239CEZZY
VHDHVU17TRF-1Y



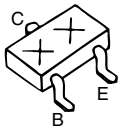
VHiMM3033D+-1Y
VHiPST3627U-1Y



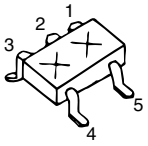
VSMCH3405++-1Y



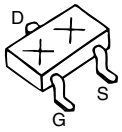
VHiTK15417M-1Y
VSFDG312P++-1Y
VSHN1A02F++-1Y
VSRN4982///-1Y
VSRN4983///-1Y
VSRN4984///-1Y
VSSi3853DV+-1Y
VSHN1B04FU/-1Y



VS2SA1362GR-1Y
VS2SA1989R/-1Y
VS2SC4627CD-1Y
VS2SC5383F/-1Y
VSDTA114EE/-1Y
VSKTA2014EY-1Y
VSDTC114EE/-1Y



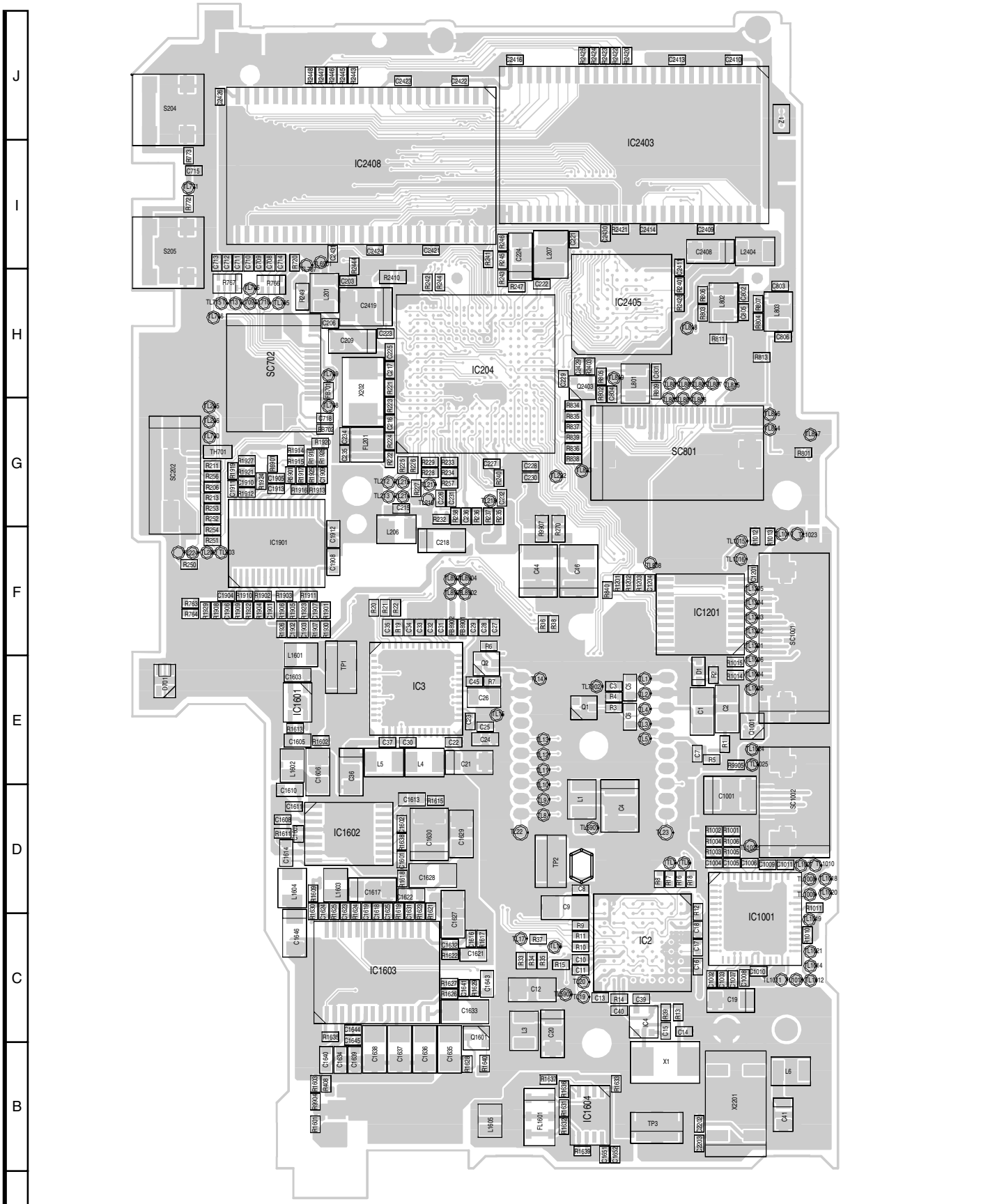
VHiPQ1X331M-1Y
VHiPQ1X501M-1Y
VHiSN1GU04C-1Y
VSKTC601UY+-1Y
VSRN1704///-1Y



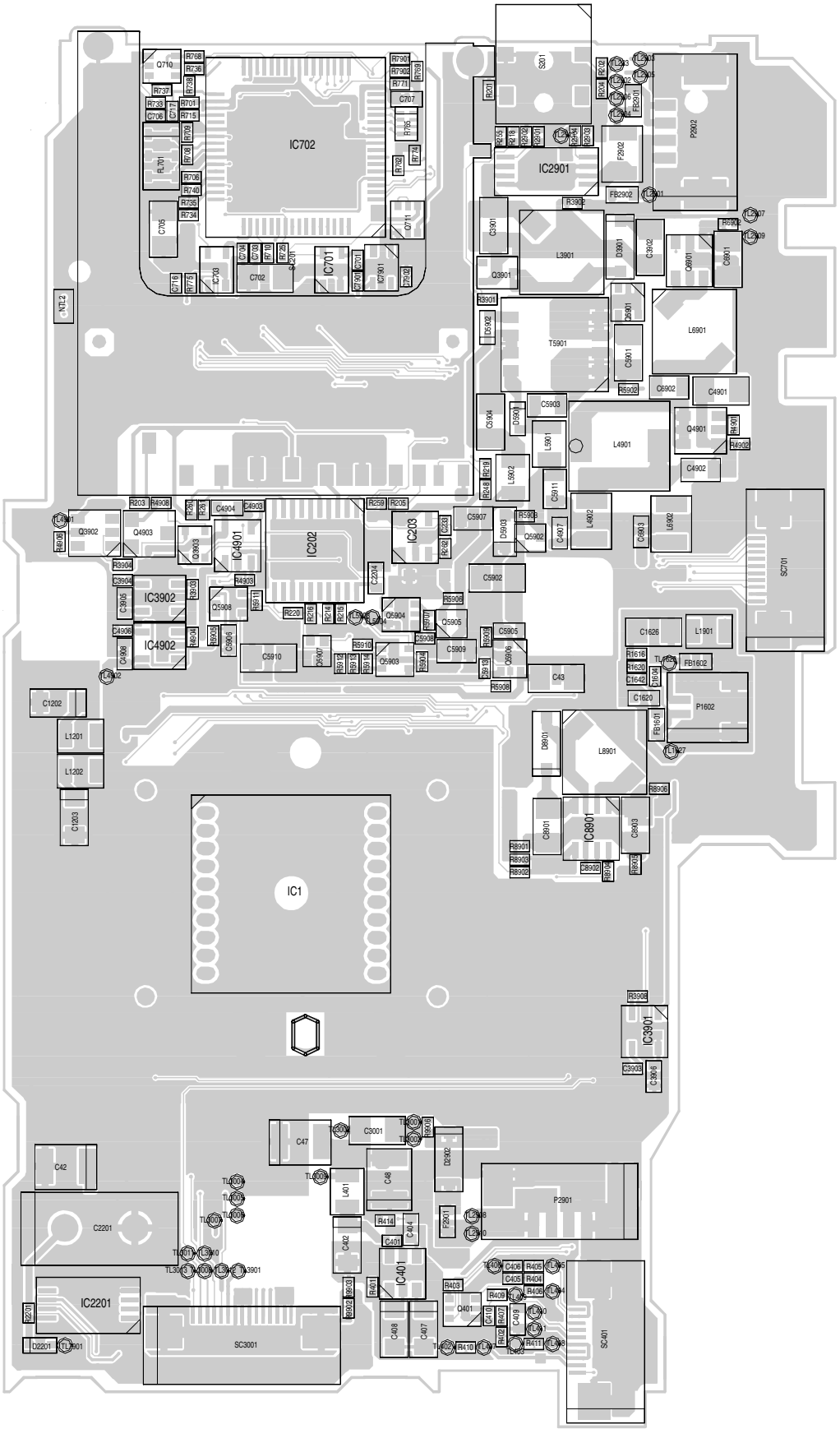
VS2SK508///-1Y

- M E M O -

10. PRINTED WIRING BOARD ASSEMBLIES

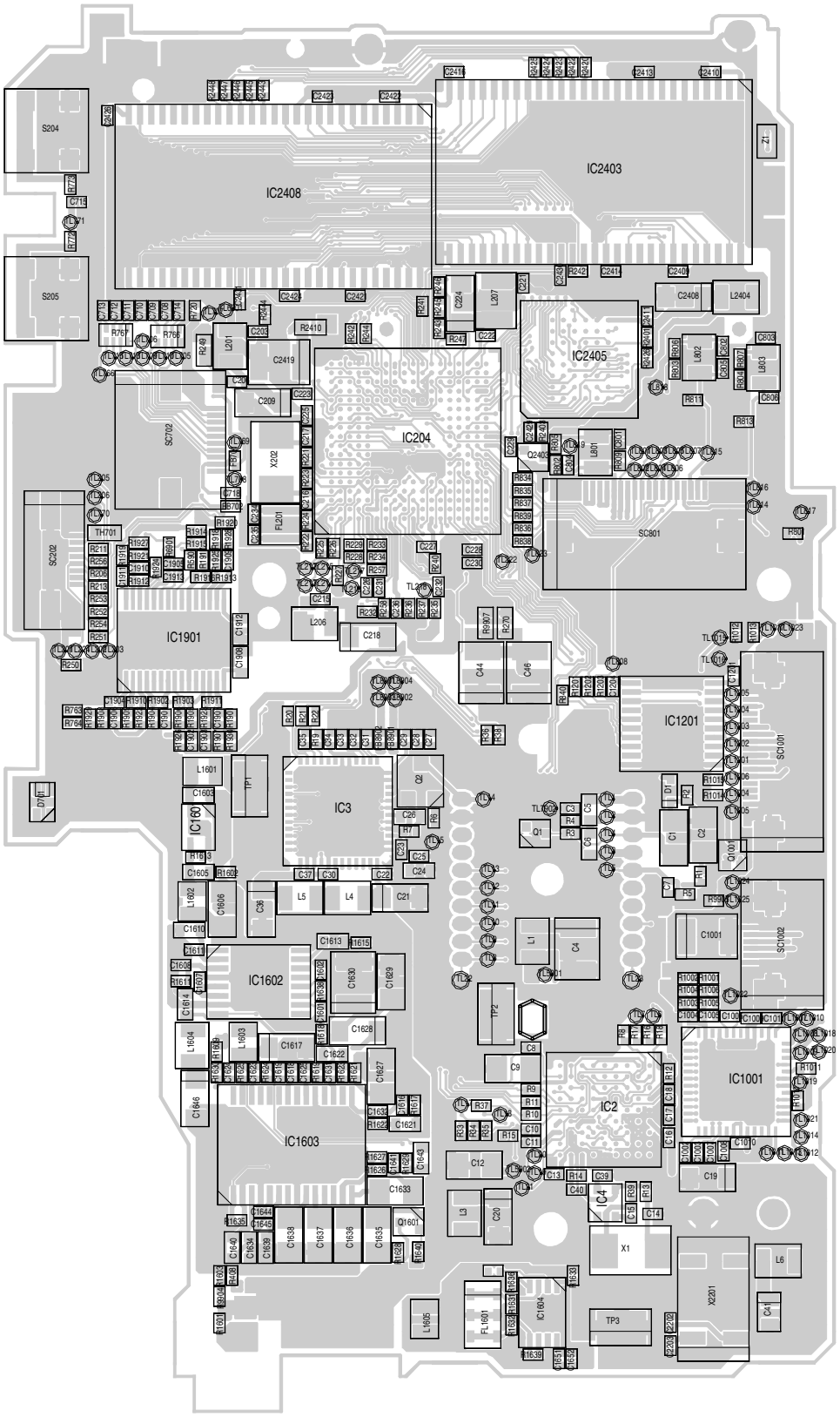


MAIN PWB (VE-CG40U) SIDE A



MAIN PWB (VE-CG40U) SIDE B

10	11	12	13	14	15	16	17	18	19


IC2408
IC2403
IC2405
IC204
IC1901
IC1201
IC3
IC1602
IC1603
IC2
IC4
IC1001
SC801
SC1001
SC1002
SC202
SC702
S204
S205
X202
X1
X2201
TP1
TP2
TP3
Q1
Q2
Q240
Q1601
FL1601
L1601
L1602
L1603
L1604
L1605
L1606
L1
L2
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L201
L206
L207
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IC160
C2419
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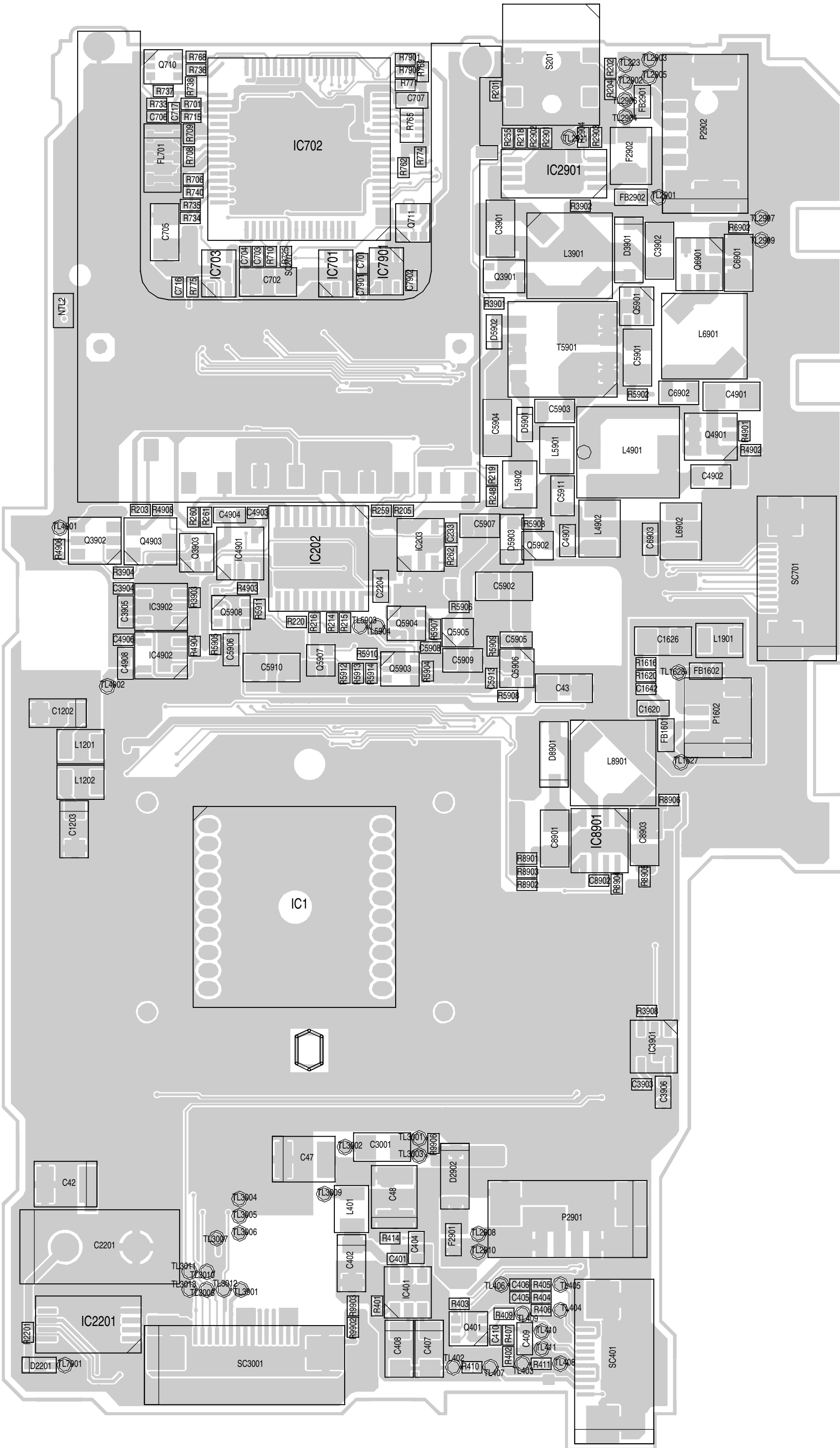
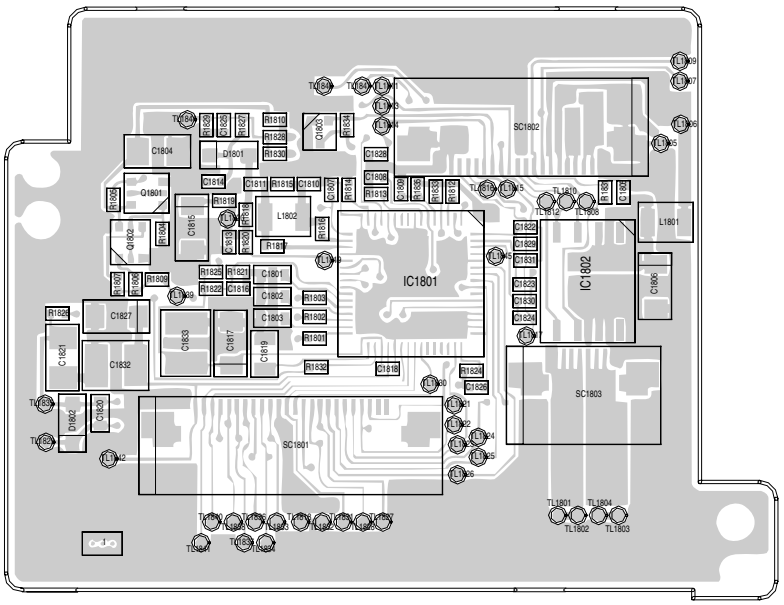
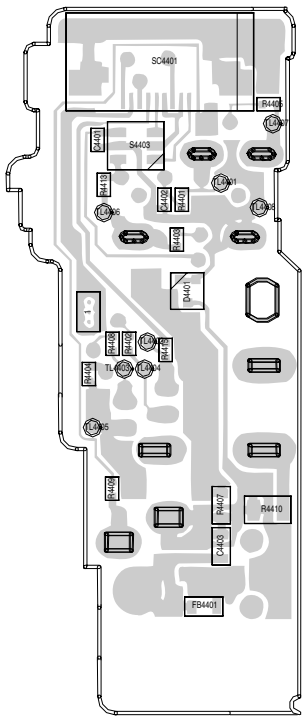

Q710 R768 R736 R738 R737 R733 R701 C706 C717 R715 R709 FL701 R708 R706 R740 R735 R734 C705
IC702
R7901 R7902 R763 R771 C707 R765 R774 R762 Q711
C716 R775 IC703 C704 C703 R710 R725 C702 IC701 C701 C7901 IC7901 C7902
NTL2
S201 R201 R202 R204 TL223 TL2903 TL2902 TL2905 TL2906 TL2904 FB2901 P2902
R255 R218 R2902 R2901 R2904 R2903 F2902 IC2901 FB2902 TL2901 R3902
C3901 L3901 D3901 C3902 Q6901 C6901 R6902 TL2907 TL2909 Q3901
R3901 D5902 T5901 Q5901 C5901 L6901 R5902 C6902 C4901
C5904 D5901 C5903 L5901 L4901 Q4901 R4901 R4902 C4902
R219 R248 L5902 C5911
R203 R4908 R260 R261 C4904 C4903 R259 R205 C5907 R5903 D5903 Q5902 C4907 L4902 C6903 L6902
TL4901 R4906 Q3902 Q4903 Q3903 IC4901 IC202 IC203 C233 R262 SC701
R3904 C3904 C3905 IC3902 R3903 R4903 Q5908 R5911 C2204 C5902
R220 R216 R214 R215 TL5903 L5904 Q5904 R5906 R5907 Q5905
C4906 C4908 IC4902 R4904 R5905 C5906 C5910 Q5907 R5910 R5912 R5913 R5914 Q5903 R5904 C5908 C5909 R5909 C5905 C5913 Q5906 R5908 C43
TL4902
C1626 L1901 R1616 R1620 C1642 TL1628 FB1602 C1620 P1602 FB1601
C1202 L1201 L1202 C1203
D8901 L8901 TL1627 R8906 C8901 IC8901 C8903 R8901 R8903 R8902 C8902 R8904 R8905
IC1
R3908 IC3901 C3903 C3906
C47 TL3902 C3001 TL3001 TL3003 R9906 D2902
C42 TL3904 TL3905 TL3906 TL3007 TL3009 L401 C48
C2201 TL3011 TL3010 TL3013 TL3008 TL3012 TL3901
P2901 F2901 TL2908 TL2910 R414 C404 C401 C402
IC401 TL406 C406 R405 TL405 C405 R404 R406 TL404 R403 R409 TL409 Q401
R401 R9903 R9902 C408 C407 C410 R407 C409 TL410 TL411 R402 TL402 R410 TL407 TL403 R411 TL408 SC401
IC2201 R2201 D2201 TL7901 SC3001

MAIN PWB (VE-CG30U) SIDE B

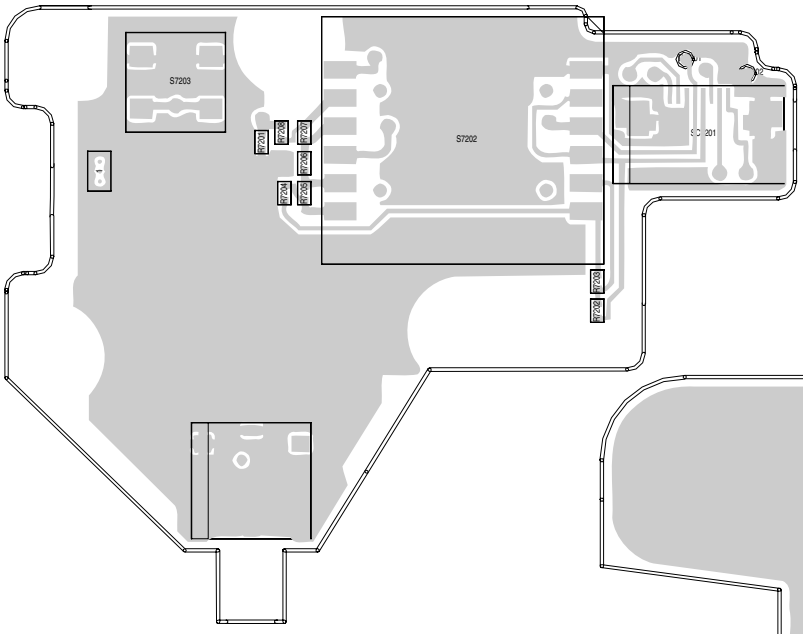
10	11	12	13	14	15	16	17	18	19



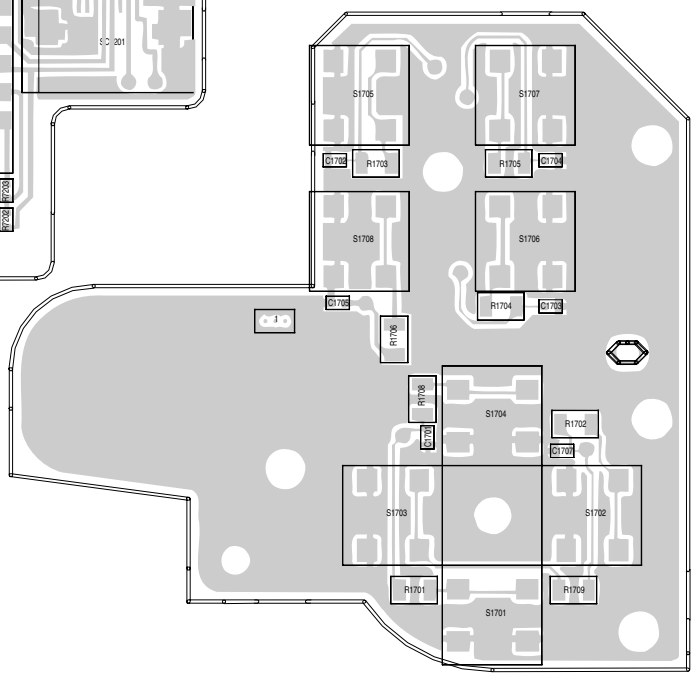
LCD SIDE A



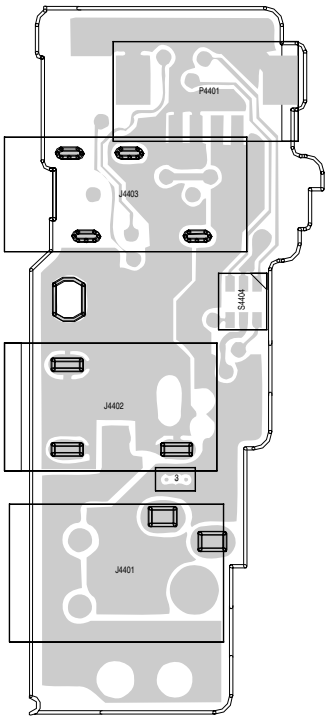
JACK SIDE A



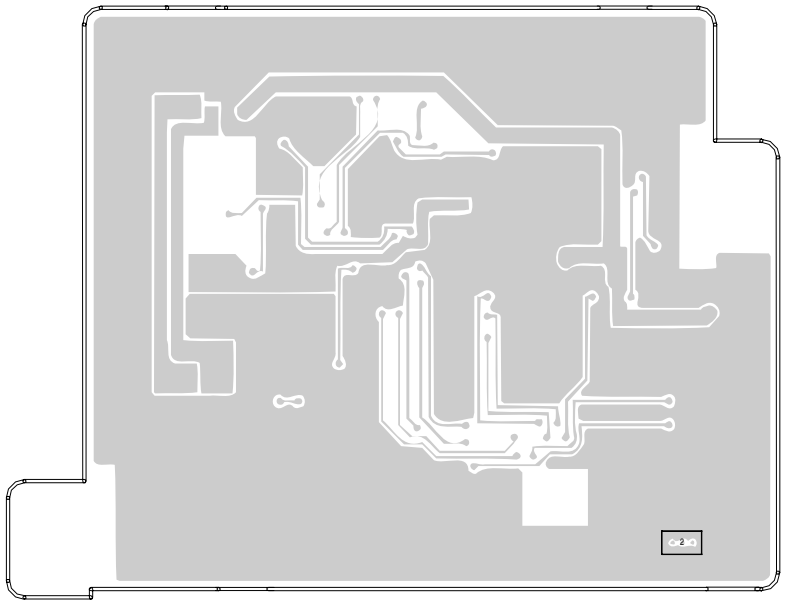
TOP-OPERATION SIDE A



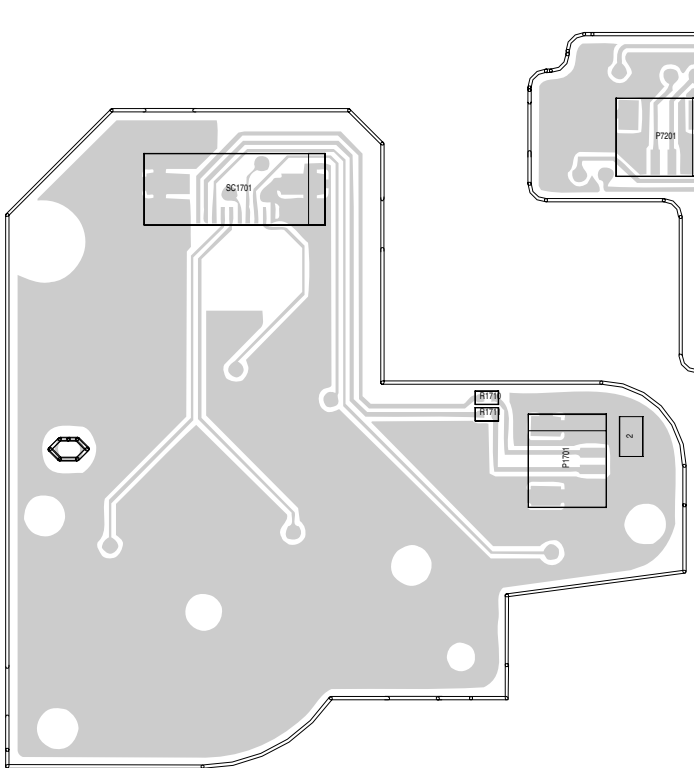
OPERATION SIDE A



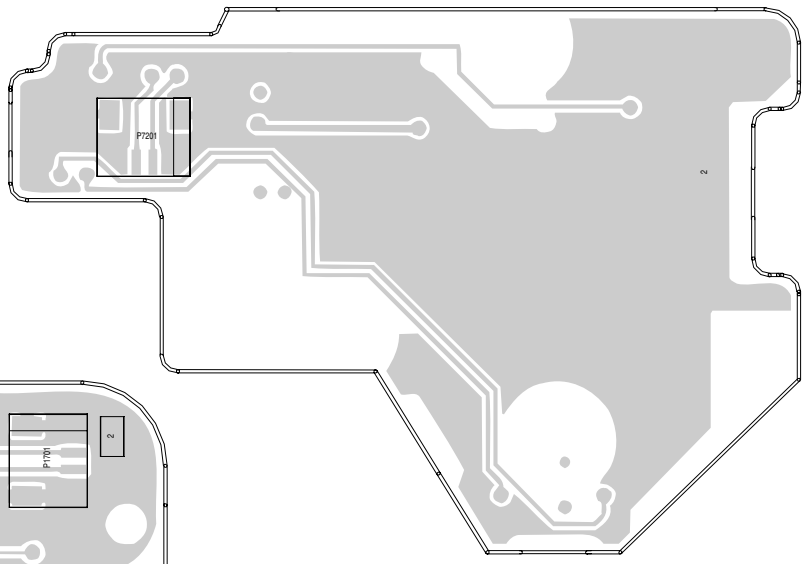
JACK SIDE B



LCD SIDE B



OPERATION SIDE B



TOP-OPERATION SIDE B

10	11	12	13	14	15	16	17	18	19

11. REPLACEMENT PARTS LIST/ EXPLODED VIEWS

ELECTRICAL PARTS LIST

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

Les pièces marquéss "⚠" sont importantes pour maintenir la sècurité de l'appareil. Ne remplacer ces pieces que par des pièces dont le numéro est spécifié pour maintenir la sécurité et protéger le bon fonctinnement de l'appareil.

" HOW TO ORDER REPLACEMENT PARTS "

in USA: Contact your nearest SHARP Parts Distributor. For location of SHARP Parts Distributor,
Call Toll-free 1-IBE800-SHARP

in CANADA: Contact SHARP Electronics of Canada Limited
Phone (416) 890-2100.

★MARK : SPARE PARTS-DELIVERY SECTION:ALL JAPAN

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER **2. REF. NO.**
3. PART NO. **4. DESCRIPTION**
5. PRICE CODE

⚠ MARK: SAFETY RELATED PARTS
⚠ PIECES: RELATIVES A LA SECURITE

PWB ASSEMBLY IS NOT REPLACEMENT ITEM
L'ASSEMBLANGE P.C.I. EST UN ARTICLE NON REMPLACABLE

Ref. No.	Part No.	★	Description	Code

PRINTED WIRING BOARD ASSEMBLIES
(NOT REPLACEMENT ITEM)

	DUNTKB356QA00	J	Main PWB Unit(VE-CG40U)	CC
	DUNTKB357QA00	J	Main PWB Unit(VE-CG30U)	CB
	DUNTKB358PM00	J	Operation PWB Unit (VE-CG40U)	AM
	DUNTKB358PM01	J	Operation PWB Unit (VE-CG30U)	AN
	DUNTKB359PM00	J	Jack PWB Unit(VE-CG40U)	AS
	DUNTKB359PM01	J	Jack PWB Unit(VE-CG30U)	AR
	DUNTKB360PM00	J	Top-Operation PWB Unit	AR
	DUNTKB514QA00	J	LCD PWB Unit	BB

DUNTKB356QA00(VE-CG40U) DUNTKB357QA00(VE-CG30U) MAIN PWB UNIT

INTEGRATED CIRCUITS

⚠	F2902	VHiCCP2E30/-1Y	J	Fuse, 2.5A	AD
	IC2	VHiLRS5714+-1Q	J	LRS5714+(CG30U)	AR
	IC2	VHiLRS5715+-1Q	J	LRS5715+(CG40U)	AS
	IC3	VHiVSP2260M-1Y	J	VSP2260M(CG30U)	AN
	IC3	VHiVSP2270M-1Y	J	VSP2270M(CG40U)	AN
	IC4	VHiSN1GU04C-1Y	J	SN1GU04C	AD
	IC202	VHiLVC244T+-1Y	J	LVC244T+	AF
	IC203	VHiPQ1X331M-1Y	J	PQ1X331M	AD
	IC204	VHiLR38668Y-1Q	J	LR38668Y	BB
	IC401	VHiTK15417M-1Y	J	TK15417M	AF
	IC701	VHiPST3627U-1Y	J	PST3627U, Reset	AD
	IC702	RH-iXA274WJZZQ	J	IXA274WJ	AM
	IC1001	VHiLB8649FN-1Y	J	LB8649FN	AN
	IC1201	VHiMB8346BV-1Y	J	MB8346BV	AN
	IC1602	VHiPCM3008+-1Y	J	PCM3008+(CG40U)	AN
	IC1603	VHiBH6406FV-1Y	J	BH6406FV(CG40U)	AL
	IC1604	VHiSN2GU04C-1Y	J	SN2GU04C(CG40U)	AD
	IC1901	VHiMB39A102-1Y	J	MB39A102	AK
	IC2201	VHiRS5C313/-1Y	J	RS5C313, RTC	AL
	IC2403	RH-iXA124WJZZQ	J	IXA124WJ, 128Mbit SDRAM	BD
	IC2405	CHiLHF16J14-4	J	LHF16J14(CG40U) written the firmware for CG40	AX
	IC2405	CHiLHF16J14-3	J	LHF16J14(CG30U) written the firmware for CG30	AV
	IC2408	RH-iXA124WJZZQ	J	IXA124WJ, 128Mbit SDRAM	BD
	IC2901	VSSi6967DQ+-1Y	J	Si6967DQ+	AE
	IC3901	VHiPQ1X501M-1Y	J	PQ1X501M(CG40U)	AC
	IC3902	VHiPQ1X501M-1Y	J	PQ1X501M	AC
	IC4901	VHiPQ1X331M-1Y	J	PQ1X331M	AD
	IC4902	VHiPQ1X331M-1Y	J	PQ1X331M	AD
	IC7901	VHiMM3033D+-1Y	J	MM3033D+	AC
	IC8901	VHiTK11851L-1Y	J	TK11851L	AG

TRANSISTORS

Q1	VS2SC5383F/-1Y	J	2SC5383F	AB
Q2	VS2SC4627CD-1Y	J	2SC4627CD(CG40U)	AB
Q2	VS2SK508///-1Y	J	2SK508(CG30U)	AE
Q401	VSRN4984///-1Y	J	RN4984	AC
Q710	VSRN4983///-1Y	J	RN4983	AC
Q711	VSRN4983///-1Y	J	RN4983	AC
Q1001	VSDTA114EE/-1Y	J	DTA114EE	AB
Q2403	VSDTA114EE/-1Y	J	DTA114EE	AB
Q3901	VSMCH3405++-1Y	J	MCH3405++	AD
Q3902	VSHN1A02F++-1Y	J	HN1A02F++	AC
Q3903	VSRN1704///-1Y	J	RN1704	AC
Q4901	VSSi3853DV+-1Y	J	Si3853DV+	AD
Q4903	VS2SA1362GR-1Y	J	2SA1362GR	AC
Q5901	VSFDG312P++-1Y	J	FDG312P++	AD
Q5902	VS2SA1989R/-1Y	J	2SA1989R	AB
Q5903	VSKTC601UY+-1Y	J	KTC601UY+	AC
Q5904	VSRN4983///-1Y	J	RN4983	AC
Q5905	VS2SC5383F/-1Y	J	2SC5383F	AB
Q5906	VSRN4982///-1Y	J	RN4982	AB
Q5907	VSKTA2014EY-1Y	J	KTA2014EY, CAM 15V Reg.	AB
Q5908	VSRN1704///-1Y	J	RN1704	AC
Q6901	VSSi3853DV+-1Y	J	Si3853DV+	AD

DIODES

D1	VHD1SS400++-1Y	J	1SS400++	AB
D701	RH-PX0210TAZZY	J	PhotoDiode	AC
D2201	VHDRB521S30-1Y	J	RB521S30	AC
D2902	VHDFS1J3///-1Y	J	FS1J3	AD
D3901	VHDFS1J3///-1Y	J	FS1J3	AD
D5901	VHD1SS400++-1Y	J	1SS400++	AB
D5902	VHD1SS400++-1Y	J	1SS400++	AB
D5903	RH-EX1257CEZZY	J	Zener, EX1257CE	AA
D5905	RH-EX1273CEZZY	J	Zener, EX1273CE	AB
D8901	VHDFS1J3///-1Y	J	FS1J3	AD

PACKAGED CIRCUITS

X1	RCRSCA027WJZZY	J	Crystal, CRSCA027WJ (CG30U)	AG
X1	RCRSCA028WJZZY	J	Crystal, CRSCA028WJ (CG40U)	AG
X202	RCRSCA039WJZZY	J	Crystal, CRSCA039WJ	AG
X2201	RCRSC0032TAZZY	J	Crystal, CRSC0032TA	AG

COILS AND TRANSFORMER

L1	VPD9M100KR86NY	J	Peaking, 10µH(CG30U)	AC
L1	VPD9M221J210NY	J	Peaking, 220µH(CG40U)	AB
L3	VPD9M330K2R9NY	J	Peaking, 33µH	AA
L4	VPD9M470K4R1NY	J	Peaking, 47µH	AC
L5	VPD9M330K2R9NY	J	Peaking, 33µH	AA
L6	VPD9M330K2R9NY	J	Peaking, 33µH	AA
L201	VPD9M100KR86NY	J	Peaking, 10µH	AC
L206	VPD9M470K4R1NY	J	Peaking, 47µH	AC
L207	VPCQM100KR41NY	J	Peaking, 10µH	AC
L401	VPD9M470K4R1NY	J	Peaking, 47µH	AC
L801	VPD9M330J3R6NY	J	Peaking, 33µH	AC

Ref. No.	Part No.	★	Description	Code
DUNTKB356QA00(VE-CG40U) DUNTKB357QA00(VE-CG30U) MAIN PWB UNIT(Continued)				
L802	VPD9M330J3R6NY	J	Peaking, 33µH	AC
L803	VPD9M330J3R6NY	J	Peaking, 33µH	AC
L1201	VPD9M470K4R1NY	J	Peaking, 47µH	AC
L1202	VPD9M470K4R1NY	J	Peaking, 47µH	AC
L1602	VPCBM4R7MR25NY	J	Peaking, 4.7µH (CG40U)	AC
L1603	VPCBM4R7MR25NY	J	Peaking, 4.7µH (CG40U)	AC
L1604	VPD9M4R7MR53NY	J	Peaking, 4.7µH (CG40U)	AB
L1605	VPCBM4R7MR25NY	J	Peaking, 4.7µH (CG40U)	AC
L1901	VPAWM100K1R5NY	J	Peaking, 10µH	AC
L2404	VPD9M220K2R0NY	J	Peaking, 22µH	AC
L3901	RCiLPA047WJZZY	J	Coil, CiLPA047WJ	AD
L4901	RCiLP0270TAZZY	J	Coil, CiLP0270TA	AB
L4902	VPCQM2R2MR15NY	J	Peaking, 2.2µH	AC
L5901	VPD9M100KR86NY	J	Peaking, 10µH	AC
L5902	VPD9M100KR86NY	J	Peaking, 10µH	AC
L6901	RCiLPA048WJZZY	J	Coil, CiLPA048WJ	AD
L6902	VPCQM2R2MR15NY	J	Peaking, 2.2µH	AC
L8901	RCiLPA050WJZZY	J	Coil, CiLPA050WJ	AD
⚠ T5901	RTRNWA056WJZZY	J	Transformer	AE
CAPACITORS				
C1	RC-KZ0070TAZZY	J	4.7 16V Ceramic (CG40U)	AD
C1	RC-KZ0072TAZZY	J	1 25V Ceramic (CG30U)	AC
C2	RC-KZA010WJZZY	J	1 Ceramic	AB
C3	VCKYCZ1HB271KY	J	270p 50V Ceramic (CG30U)	AC
C3	VCKYCZ1HB681KY	J	680p 50V Ceramic (CG40U)	AB
C4	VCSATE1VJ335MY	J	3.3 35V Tantalum	AD
C5	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C6	VCKYCY1AB105KY	J	1 10V Ceramic (CG40U)	AB
C6	VCKYCY1EF104ZY	J	0.1 25V Ceramic (CG30U)	AA
C7	VCKYCZ1CB103KY	J	0.01 16V Ceramic	AB
C8	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C9	RC-KZ0046TAZZY	J	4.7 Ceramic	AD
C10	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C11	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C12	RC-KZA041WJZZY	J	10 10V Ceramic	AC
C13	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C14	VCCCCZ1HH6R0DY	J	6p 50V Ceramic (CG40U)	AA
C14	VCCCCZ1HH100DY	J	10p 50V Ceramic (CG30U)	AB
C15	VCCCCZ1HH5R0CY	J	5p 50V Ceramic (CG40U)	AA
C15	VCCCCZ1HH120JY	J	12p 50V Ceramic (CG30U)	AB
C16	VCKYCZ1AF104ZY	J	0.1 10V Ceramic (CG30U)	AB
C17	VCKYCZ1HF103ZY	J	0.01 50V Ceramic	AB
C18	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C19	VCSATA1AJ156MY	J	15 10V Tantalum	AD
C20	VCSATA0YJ336MY	J	33 7V Tantalum	AD
C21	VCSATA0YJ336MY	J	33 7V Tantalum	AD
C22	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C23	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C24	VCKYCY1CB104KY	J	0.1 16V Ceramic (CG30U)	AB
C24	VCKYCY1CB224KY	J	0.22 16V Ceramic (CG40U)	AA
C25	VCKYCZ1HB221KY	J	220p 50V Ceramic (CG40U)	AA
C25	VCKYCZ1HB561KY	J	560p 50V Ceramic (CG30U)	AC
C26	RC-KZ0083TAZZY	J	2.2 Ceramic (CG40U)	AC
C26	VCKYCY1CB104KY	J	0.1 16V Ceramic (CG30U)	AB
C27	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C28	VCKYCZ1HB221KY	J	220p 50V Ceramic (CG40U)	AA
C28	VCKYCZ1HB561KY	J	560p 50V Ceramic (CG30U)	AC
C29	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C30	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C31	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C32	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C33	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C34	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C35	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C36	VCSATA1AJ106MY	J	10 10V Tantalum	AC
C37	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C39	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C40	VCKYCZ1CB103KY	J	0.01 16V Ceramic	AB
C41	VCSAPR1AJ475MY	J	4.7 10V Tantalum	AD
C42	VCSATE1AJ476MY	J	47 10V Tantalum	AD
C43	RC-KZA041WJZZY	J	10 10V Ceramic (CG40U)	AC
C44	VCSATE1CJ226MY	J	22 16V Tantalum (CG40U)	AE
C45	VCCCCZ1HH120JY	J	12p 50V Ceramic (CG40U)	AB
C46	VCSATE1CJ226MY	J	22 16V Tantalum (CG40U)	AE
C47	VCSATE1CJ226MY	J	22 16V Tantalum (CG40U)	AE
C48	VCSATE1CJ226MY	J	22 16V Tantalum (CG40U)	AE
C203	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C206	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C209	VCSATA0JJ226MY	J	22 6.3V Tantalum	AD
C215	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C216	VCCCCZ1HH150JY	J	15p 50V Ceramic	AB
C217	VCCCCZ1HH120JY	J	12p 50V Ceramic	AB
C218	VCSATA0JJ336MY	J	33 6.3V Tantalum	AD
C222	VCKYCZ1AF104ZY	J	0.1 10V Ceramic	AB
C223	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C224	VCSATA0YJ336MY	J	33 7V Tantalum	AD
C225	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C226	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C227	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C228	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C229	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C230	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C231	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C232	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C233	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C234	VCCCCZ1HH390JY	J	39p 50V Ceramic	AB
C235	VCCCCZ1HH390JY	J	39p 50V Ceramic	AB
C236	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C401	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C402	VCSATA1AJ106MY	J	10 10V Tantalum	AC
C404	VCKYCY0JB105KY	J	1 6.3V Ceramic	AC
C407	VCSATA0JJ336MY	J	33 6.3V Tantalum	AD
C408	VCSATA0JJ336MY	J	33 6.3V Tantalum	AD
C409	VCKYCY0JB105KY	J	1 6.3V Ceramic	AC
C410	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C701	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C702	RC-KZ0070TAZZY	J	4.7 16V Ceramic	AD
C703	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C706	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C707	VCKYCY0JB105KY	J	1 6.3V Ceramic	AC
C708	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C709	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C710	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C711	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C712	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C713	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C714	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C715	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C716	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB

DUNTKB356QA00(VE-CG40U)
DUNTKB357QA00(VE-CG30U)
MAIN PWB UNIT(Continued)

Ref. No.	Part No.	★	Description	Code
C718	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C801	VCCCCZ1HH560JY	J	56p 50V Ceramic	AB
C802	VCCCCZ1HH560JY	J	56p 50V Ceramic	AB
C803	VCCCCZ1HH560JY	J	56p 50V Ceramic	AB
C804	VCCCCZ1HH680JY	J	68p 50V Ceramic	AB
C805	VCCCCZ1HH680JY	J	68p 50V Ceramic	AB
C806	VCCCCZ1HH680JY	J	68p 50V Ceramic	AB
C1001	VCSATE1AJ476MY	J	47 10V Tantalum	AD
C1002	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1003	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1004	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1005	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1006	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1007	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1008	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1009	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1010	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1011	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1201	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1203	VCSATA1AJ106MY	J	10 10V Tantalum	AC
C1204	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1601	VCKYCZ1HB102KY	J	1000p 50V Ceramic (CG40U)	AB
C1602	VCKYCZ1HB102KY	J	1000p 50V Ceramic (CG40U)	AB
C1606	RC-KZ0070TAZZY	J	4.7 16V Ceramic (CG40U)	AD
C1607	VCKYCZ1AF104ZY	J	0.1 10V Ceramic (CG40U)	AB
C1608	VCKYCZ1HB222KY	J	2200p 50V Ceramic (CG40U)	AB
C1610	VCKYCY0JB105KY	J	1 6.3V Ceramic (CG40U)	AC
C1611	VCKYCZ1AF104ZY	J	0.1 10V Ceramic (CG40U)	AB
C1613	VCKYCY0JB105KY	J	1 6.3V Ceramic (CG40U)	AC
C1614	VCKYCY0JB105KY	J	1 6.3V Ceramic (CG40U)	AC
C1616	VCKYCZ1AB104KY	J	0.1 10V Ceramic (CG40U)	AB
C1617	VCSATA1AJ106MY	J	10 10V Tantalum (CG40U)	AC
C1618	VCKYCZ1CB103KY	J	0.01 16V Ceramic (CG40U)	AB
C1619	VCKYCZ1AF104ZY	J	0.1 10V Ceramic (CG40U)	AB
C1620	VCKYCY0JB105KY	J	1 6.3V Ceramic (CG40U)	AC
C1621	VCKYCY0JB105KY	J	1 6.3V Ceramic (CG40U)	AC
C1622	VCKYCY1CF224ZY	J	0.22 16V Ceramic (CG40U)	AB
C1623	VCCCCZ1HH220JY	J	22p 50V Ceramic (CG40U)	AB
C1624	VCCCCZ1HH220JY	J	22p 50V Ceramic (CG40U)	AB
C1625	VCCCCZ1HH220JY	J	22p 50V Ceramic (CG40U)	AB
C1626	RC-KZ0074TAZZY	J	10 Ceramic (CG40U)	AF
C1627	RC-KZ0070TAZZY	J	4.7 16V Ceramic (CG40U)	AD
C1628	RC-KZ0070TAZZY	J	4.7 16V Ceramic (CG40U)	AD
C1629	RC-KZ0074TAZZY	J	10 Ceramic (CG40U)	AF
C1630	VCSATE1AJ476MY	J	47 10V Tantalum (CG40U)	AD
C1631	VCCCCZ1HH220JY	J	22p 50V Ceramic (CG40U)	AB
C1632	VCCCCZ1HH220JY	J	22p 50V Ceramic (CG40U)	AB
C1633	RC-KZ0074TAZZY	J	10 Ceramic (CG40U)	AF
C1634	VCKYCY0JB105KY	J	1 6.3V Ceramic (CG40U)	AC
C1635	RC-KZ0074TAZZY	J	10 Ceramic (CG40U)	AF
C1636	RC-KZ0074TAZZY	J	10 Ceramic (CG40U)	AF
C1637	RC-KZ0074TAZZY	J	10 Ceramic (CG40U)	AF
C1638	RC-KZ0074TAZZY	J	10 Ceramic (CG40U)	AF
C1639	VCKYCY0JB105KY	J	1 6.3V Ceramic (CG40U)	AC
C1640	VCKYCY0JB105KY	J	1 6.3V Ceramic (CG40U)	AC
C1641	VCKYCZ1CB223KY	J	0.022 16V Ceramic (CG40U)	AC
C1642	VCCCCZ1HH100DY	J	10p 50V Ceramic (CG40U)	AB
C1643	VCKYCY0JB105KY	J	1 6.3V Ceramic (CG40U)	AC
C1644	VCKYCZ1AB104KY	J	0.1 10V Ceramic (CG40U)	AB
C1645	VCKYCZ1AB104KY	J	0.1 10V Ceramic (CG40U)	AB
C1646	VCSATA1AJ106MY	J	10 10V Tantalum (CG40U)	AC
C1651	VCKYCZ1AF104ZY	J	0.1 10V Ceramic (CG40U)	AB
C1652	VCKYCZ1CB103KY	J	0.01 16V Ceramic (CG40U)	AB
C1901	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1902	VCCCCZ1HH101JY	J	100p 50V Ceramic	AB
C1903	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1904	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1905	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1906	VCKYCZ1CB103KY	J	0.01 16V Ceramic	AB
C1907	VCKYCZ1CB103KY	J	0.01 16V Ceramic	AB
C1908	VCKYCY0JB105KY	J	1 6.3V Ceramic	AC
C1909	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1910	VCKYCZ1CB103KY	J	0.01 16V Ceramic	AB
C1911	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C1912	VCKYCY0JB105KY	J	1 6.3V Ceramic	AC
C1913	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2201	RC-EZ0425GEZZ	J	0.047 5.5V Electrolytic	AE
C2203	VCCCCZ1HH150JY	J	15p 50V Ceramic	AB
C2204	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2408	VCSATA0YJ336MY	J	33 7V Tantalum	AD
C2409	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2410	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2411	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2413	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2414	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2416	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2419	VCSATE1AJ226MY	J	22 10V Tantalum	AD
C2421	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2422	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2423	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2424	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2426	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C2429	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C3001	RC-KZA041WJZZY	J	10 10V Ceramic	AC
C3901	RC-KZ0070TAZZY	J	4.7 16V Ceramic	AD
C3902	RC-KZ0070TAZZY	J	4.7 16V Ceramic	AD
C3903	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C3904	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C3905	VCKYCY0JB105KY	J	1 6.3V Ceramic	AC
C3906	VCKYCY0JB105KY	J	1 6.3V Ceramic (CG40U)	AC
C4901	RC-KZ0070TAZZY	J	4.7 16V Ceramic	AD
C4902	RC-KZ0117TAZZY	J	4.7 6.3V Ceramic	AD
C4903	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C4904	VCKYCY0JB105KY	J	1 6.3V Ceramic	AC
C4906	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C4907	VCKYCY0JB105KY	J	1 6.3V Ceramic	AC

Ref. No.	Part No.	★	Description	Code

DUNTKB356QA00(VE-CG40U)
DUNTKB357QA00(VE-CG30U)
MAIN PWB UNIT(Continued)

C4908	VCKYCY0JB105KY	J	1 6.3V Ceramic	AC
C5901	RC-KZ0075TAZZY	J	2.2 16V Ceramic	AC
C5902	RC-KZ0075TAZZY	J	2.2 16V Ceramic	AC
C5903	VCKYTV1CB105KY	J	1 16V Ceramic	AC
C5904	RC-KZ0072TAZZY	J	1 25V Ceramic	AC
C5905	VCKYCY1CB224KY	J	0.22 16V Ceramic	AA
C5906	VCKYCY1CB224KY	J	0.22 16V Ceramic	AA
C5907	VCKYTV1EB104KY	J	0.1 25V Ceramic	AB
C5908	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C5909	VCKYTV1CB105KY	J	1 16V Ceramic	AC
C5910	RC-KZ0072TAZZY	J	1 25V Ceramic	AC
C5911	VCKYTV1CB105KY	J	1 16V Ceramic	AC
C5913	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C6901	RC-KZ0070TAZZY	J	4.7 16V Ceramic	AD
C6902	RC-KZ0117TAZZY	J	4.7 6.3V Ceramic	AD
C6903	VCKYCY0JB105KY	J	1 6.3V Ceramic	AC
C7901	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C7902	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
C8901	RC-KZ0075TAZZY	J	2.2 16V Ceramic	AC
C8902	VCCCCZ1HH470JY	J	47p 50V Ceramic	AB
C8903	RC-KZ0075TAZZY	J	2.2 16V Ceramic	AC
FL201	RCRMCA010WJZZY	J	Ceramic Vibrator	AF
FL701	RCRMC0001TAZZY	J	Ceramic Vibrator	AC
FL1601	RCRMC0004CEZZY	J	Ceramic Vibrator(CG40U)	AD

RESISTORS

R1	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide (CG30U)	AA
R1	VRS-CZ1JF201JY	J	200 1/16W Metal Oxide (CG40U)	AA
R2	VRS-CZ1JF103JY	J	10k 1/16W Metal Oxide (CG40U)	AA
R2	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide (CG30U)	AA
R3	VRS-CZ1JF473JY	J	47k 1/16W Metal Oxide	AA
R4	VRS-CZ1JF105JY	J	1M 1/16W Metal Oxide	AA
R5	VRS-CZ1JF105JY	J	1M 1/16W Metal Oxide	AA
R6	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R6	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide (CG30U)	AA
R7	VRS-CZ1JF222JY	J	2.2k 1/16W Metal Oxide (CG40U)	AA
R7	VRS-CZ1JF472JY	J	4.7k 1/16W Metal Oxide (CG30U)	AA
R8	VRS-CZ1JF562JY	J	5.6k 1/16W Metal Oxide	AA
R9	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R10	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R11	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R12	VRS-CZ1JF333JY	J	33k 1/16W Metal Oxide	AA
R13	VRS-CZ1JF471JY	J	470 1/16W Metal Oxide (CG40U)	AA
R13	VRS-CZ1JF561JY	J	560 1/16W Metal Oxide (CG30U)	AA
R14	VRS-CZ1JF105JY	J	1M 1/16W Metal Oxide	AA
R15	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R16	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R17	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R18	VRS-CZ1JF750JY	J	75 1/16W Metal Oxide	AA
R19	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide	AA
R20	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R21	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R22	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R23	VRS-CZ1JF152JY	J	1.5k 1/16W Metal Oxide	AA
R33	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R34	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R35	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R36	VRS-CZ1JF331JY	J	330 1/16W Metal Oxide	AA
R37	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R38	VRS-CZ1JF331JY	J	330 1/16W Metal Oxide	AA
R39	VRS-CZ1JF105JY	J	1M 1/16W Metal Oxide	AA
R201	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R202	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide	AA
R203	VRS-CZ1JF683JY	J	68k 1/16W Metal Oxide	AA
R204	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R205	VRS-CZ1JF683JY	J	68k 1/16W Metal Oxide	AA
R206	VRS-CZ1JF183JY	J	18k 1/16W Metal Oxide	AA
R211	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R213	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R214	VRS-CZ1JF330JY	J	33 1/16W Metal Oxide	AA
R215	VRS-CZ1JF330JY	J	33 1/16W Metal Oxide	AA
R216	VRS-CZ1JF330JY	J	33 1/16W Metal Oxide	AA
R218	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R219	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R220	VRS-CZ1JF330JY	J	33 1/16W Metal Oxide	AA
R221	VRS-CZ1JF152JY	J	1.5k 1/16W Metal Oxide	AA
R222	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R223	VRS-CZ1JF105JY	J	1M 1/16W Metal Oxide	AA
R224	VRS-CZ1JF105JY	J	1M 1/16W Metal Oxide	AA
R225	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R226	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R227	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R229	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R230	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R232	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R234	VRS-CZ1JF912JY	J	9.1k 1/16W Metal Oxide	AA
R235	VRS-CZ1JF822JY	J	8.2k 1/16W Metal Oxide	AA
R236	VRS-CZ1JF223JY	J	22k 1/16W Metal Oxide	AA
R237	VRS-CZ1JF393JY	J	39k 1/16W Metal Oxide	AA
R240	VRS-CZ1JF100JY	J	10 1/16W Metal Oxide	AA
R241	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R242	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R243	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R244	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R245	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R246	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R247	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R248	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide	AA
R249	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
R250	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R251	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R252	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R253	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide	AA
R254	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide	AA
R255	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide	AA
R256	VRS-CZ1JF564JY	J	560k 1/16W Metal Oxide	AB
R257	VRS-CZ1JF912JY	J	9.1k 1/16W Metal Oxide	AA
R258	VRS-CZ1JF912JY	J	9.1k 1/16W Metal Oxide	AA
R259	VRS-CZ1JF563JY	J	56k 1/16W Metal Oxide	AA
R260	VRS-CZ1JF563JY	J	56k 1/16W Metal Oxide	AA
R261	VRS-CZ1JF563JY	J	56k 1/16W Metal Oxide	AA
R262	VRS-CZ1JF222JY	J	2.2k 1/16W Metal Oxide	AA
R401	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R402	VRS-CZ1JF473JY	J	47k 1/16W Metal Oxide	AA
R403	VRS-CZ1JF473JY	J	47k 1/16W Metal Oxide	AA
R404	VRS-CZ1JF270JY	J	27 1/16W Metal Oxide	AA
R405	VRS-CZ1JF270JY	J	27 1/16W Metal Oxide	AA
R406	VRS-CZ1JF152JY	J	1.5k 1/16W Metal Oxide	AA
R407	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R408	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R409	VRS-CZ1JF222JY	J	2.2k 1/16W Metal Oxide	AA
R410	VRS-CZ1JF560JY	J	56 1/16W Metal Oxide	AA
R411	VRS-CZ1JF820JY	J	82 1/16W Metal Oxide	AA
R414	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R701	VRS-CZ1JF474JY	J	470k 1/16W Metal Oxide	AA
R706	VRS-CZ1JF224JY	J	220k 1/16W Metal Oxide	AA
R709	VRS-CZ1JF103JY	J	10k 1/16W Metal Oxide	AA
R710	VRS-CZ1JF332JY	J	3.3k 1/16W Metal Oxide	AA
R715	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R720	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R725	VRS-CZ1JF473JY	J	47k 1/16W Metal Oxide	AA
R733	VRS-CZ1JF473JY	J	47k 1/16W Metal Oxide	AA
R735	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide	AA
R736	VRS-CZ1JF103JY	J	10k 1/16W Metal Oxide	AA
R737	VRS-CZ1JF273DY	J	27k 1/16W Metal Oxide	AA
R738	VRS-CZ1JF183DY	J	18k 1/16W Metal Oxide	AA
R740	VRS-CZ1JF474JY	J	470k 1/16W Metal Oxide	AA
R762	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide	AA
R763	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide	AA
R764	VRS-CZ1JF221JY	J	220 1/16W Metal Oxide	AA

DUNTKB356QA00(VE-CG40U)
DUNTKB357QA00(VE-CG30U)
MAIN PWB UNIT(Continued)

Ref. No.	Part No.	★	Description	Code
R765	VRK-SC1FF104JY	J	100k 0.0315W Metal Composition	AA
R766	VRK-SC1FF330JY	J	33 0.0315W Metal Composition	AA
R767	VRK-SC1FF330JY	J	33 0.0315W Metal Composition	AA
R768	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide	AA
R769	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide	AA
R771	VRS-CZ1JF472JY	J	4.7k 1/16W Metal Oxide	AA
R772	VRS-CZ1JF330JY	J	33 1/16W Metal Oxide	AA
R773	VRS-CZ1JF563JY	J	56k 1/16W Metal Oxide	AA
R774	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide	AA
R775	VRS-CZ1JF104JY	J	100k 1/16W Metal Oxide	AA
R801	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R802	VRS-CZ1JF151JY	J	150 1/16W Metal Oxide	AA
R803	VRS-CZ1JF151JY	J	150 1/16W Metal Oxide	AA
R804	VRS-CZ1JF151JY	J	150 1/16W Metal Oxide	AA
R805	VRS-CZ1JF561JY	J	560 1/16W Metal Oxide	AA
R806	VRS-CZ1JF561JY	J	560 1/16W Metal Oxide	AA
R807	VRS-CZ1JF561JY	J	560 1/16W Metal Oxide	AA
R809	VRS-CZ1JF561JY	J	560 1/16W Metal Oxide	AA
R811	VRS-CZ1JF561JY	J	560 1/16W Metal Oxide	AA
R813	VRS-CZ1JF561JY	J	560 1/16W Metal Oxide	AA
R834	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide	AA
R835	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide	AA
R836	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide	AA
R837	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide	AA
R838	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide	AA
R839	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide	AA
R840	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide	AA
R1001	VRS-CZ1JF152DY	J	1.5k 1/16W Metal Oxide	AA
R1002	VRS-CZ1JF152DY	J	1.5k 1/16W Metal Oxide	AA
R1003	VRS-CZ1JF560DY	J	56 1/16W Metal Oxide	AA
R1004	VRS-CZ1JF563DY	J	56k 1/16W Metal Oxide	AA
R1005	VRS-CZ1JF560DY	J	56 1/16W Metal Oxide	AA
R1006	VRS-CZ1JF563DY	J	56k 1/16W Metal Oxide	AA
R1010	VRS-CZ1JF1R0FY	J	1 1/16W Metal Oxide	AA
R1011	VRS-CZ1JF1R0FY	J	1 1/16W Metal Oxide	AA
R1012	VRS-CZ1JF563JY	J	56k 1/16W Metal Oxide	AA
R1013	VRS-CZ1JF221JY	J	220 1/16W Metal Oxide	AA
R1014	VRS-CZ1JF563JY	J	56k 1/16W Metal Oxide	AA
R1015	VRS-CZ1JF221JY	J	220 1/16W Metal Oxide	AA
R1201	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide	AA
R1202	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide	AA
R1203	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide	AA
R1601	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R1602	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R1603	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R1609	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R1611	VRS-CZ1JF471JY	J	470 1/16W Metal Oxide (CG40U)	AA
R1613	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R1615	VRS-CZ1JF391JY	J	390 1/16W Metal Oxide (CG40U)	AA
R1616	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide (CG40U)	AA
R1617	VRS-CZ1JF473JY	J	47k 1/16W Metal Oxide (CG40U)	AA
R1618	VRS-CZ1JF473JY	J	47k 1/16W Metal Oxide (CG40U)	AA
R1619	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide (CG40U)	AA
R1620	VRS-CZ1JF222JY	J	2.2k 1/16W Metal Oxide (CG40U)	AA
R1621	VRS-CZ1JF225JY	J	2.2M 1/16W Metal Oxide (CG40U)	AA
R1622	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide (CG40U)	AA
R1623	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide (CG40U)	AA
R1624	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide (CG40U)	AA
R1625	VRS-CZ1JF101JY	J	100 1/16W Metal Oxide (CG40U)	AA
R1626	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide (CG40U)	AA
R1627	VRS-CZ1JF123JY	J	12k 1/16W Metal Oxide (CG40U)	AA
R1628	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide (CG40U)	AA
R1629	VRS-CZ1JF103JY	J	10k 1/16W Metal Oxide (CG40U)	AA
R1630	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R1631	VRS-CZ1JF105JY	J	1M 1/16W Metal Oxide (CG40U)	AA
R1632	VRS-CZ1JF472JY	J	4.7k 1/16W Metal Oxide (CG40U)	AA
R1633	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide (CG40U)	AA
R1635	VRS-CZ1JF473JY	J	47k 1/16W Metal Oxide (CG40U)	AA
R1636	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R1637	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R1638	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R1639	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R1901	VRS-CZ1JF124DY	J	120k 1/16W Metal Oxide	AA
R1902	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R1903	VRS-CZ1JF333DY	J	33k 1/16W Metal Oxide	AA
R1905	VRS-CZ1JF223DY	J	22k 1/16W Metal Oxide	AB
R1906	VRS-CZ1JF183DY	J	18k 1/16W Metal Oxide	AA
R1907	VRS-CZ1JF103DY	J	10k 1/16W Metal Oxide	AA
R1908	VRS-CZ1JF183DY	J	18k 1/16W Metal Oxide	AA
R1909	VRS-CZ1JF103DY	J	10k 1/16W Metal Oxide	AA
R1910	VRS-CZ1JF105JY	J	1M 1/16W Metal Oxide	AA
R1911	VRS-CZ1JF105JY	J	1M 1/16W Metal Oxide	AA
R1912	VRS-CZ1JF105JY	J	1M 1/16W Metal Oxide	AA
R1913	VRS-CZ1JF105JY	J	1M 1/16W Metal Oxide	AA
R1915	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R1916	VRS-CZ1JF223DY	J	22k 1/16W Metal Oxide	AB
R1917	VRS-CZ1JF333DY	J	33k 1/16W Metal Oxide	AA
R1918	VRS-CZ1JF333DY	J	33k 1/16W Metal Oxide	AA
R1919	VRS-CZ1JF123DY	J	12k 1/16W Metal Oxide	AA
R1920	VRS-CZ1JF153DY	J	15k 1/16W Metal Oxide	AA
R1921	VRS-CZ1JF332DY	J	3.3k 1/16W Metal Oxide	AA
R1922	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R1923	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R1924	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R1925	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R1926	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R1927	VRS-CZ1JF222DY	J	2.2k 1/16W Metal Oxide	AA
R1928	VRS-CZ1JF104DY	J	100k 1/16W Metal Oxide	AA
R1929	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R1930	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R2201	VRS-CZ1JF470JY	J	47 1/16W Metal Oxide	AA
R2401	VRS-CZ1JF103JY	J	10k 1/16W Metal Oxide	AA
R2403	VRS-CZ1JF103JY	J	10k 1/16W Metal Oxide	AA
R2410	VRS-TV1JD000JY	J	0 1/16W Metal Oxide	AA
R2420	VRS-CZ1JF220JY	J	22 1/16W Metal Oxide	AA
R2421	VRS-CZ1JF220JY	J	22 1/16W Metal Oxide	AA
R2422	VRS-CZ1JF220JY	J	22 1/16W Metal Oxide	AA
R2423	VRS-CZ1JF220JY	J	22 1/16W Metal Oxide	AA
R2424	VRS-CZ1JF220JY	J	22 1/16W Metal Oxide	AA
R2425	VRS-CZ1JF220JY	J	22 1/16W Metal Oxide	AA
R2426	VRS-CZ1JF473JY	J	47k 1/16W Metal Oxide	AA
R2443	VRS-CZ1JF220JY	J	22 1/16W Metal Oxide	AA
R2444	VRS-CZ1JF220JY	J	22 1/16W Metal Oxide	AA
R2445	VRS-CZ1JF220JY	J	22 1/16W Metal Oxide	AA
R2446	VRS-CZ1JF220JY	J	22 1/16W Metal Oxide	AA
R2447	VRS-CZ1JF220JY	J	22 1/16W Metal Oxide	AA
R2448	VRS-CZ1JF220JY	J	22 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
DUNTKB356QA00(VE-CG40U) DUNTKB357QA00(VE-CG30U) MAIN PWB UNIT(Continued)				
R2901	VRS-CZ1JF471JY	J	470 1/16W Metal Oxide	AA
R2902	VRS-CZ1JF222JY	J	2.2k 1/16W Metal Oxide	AA
R2903	VRS-CZ1JF103JY	J	10k 1/16W Metal Oxide	AA
R2904	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R3901	VRS-CZ1JF100JY	J	10 1/16W Metal Oxide	AA
R3902	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R3903	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R3904	VRS-CZ1JF272JY	J	2.7k 1/16W Metal Oxide	AA
R3908	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide (CG40U)	AA
R4901	VRS-CZ1JF100JY	J	10 1/16W Metal Oxide	AA
R4902	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R4903	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R4904	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R4906	VRS-CZ1JF272JY	J	2.7k 1/16W Metal Oxide	AA
R4908	VRS-CZ1JF272JY	J	2.7k 1/16W Metal Oxide	AA
R5901	VRS-CZ1JF100JY	J	10 1/16W Metal Oxide	AA
R5902	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R5903	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R5904	VRS-CZ1JF153JY	J	15k 1/16W Metal Oxide	AA
R5905	VRS-CZ1JF683JY	J	68k 1/16W Metal Oxide	AA
R5906	VRS-CZ1JF222JY	J	2.2k 1/16W Metal Oxide	AA
R5907	VRS-CZ1JF223JY	J	22k 1/16W Metal Oxide	AA
R5908	VRS-CZ1JF683JY	J	68k 1/16W Metal Oxide	AA
R5909	VRS-CZ1JF103JY	J	10k 1/16W Metal Oxide	AA
R5910	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R5911	VRS-CZ1JF102JY	J	1k 1/16W Metal Oxide	AA
R5912	VRS-CZ1JF183DY	J	18k 1/16W Metal Oxide	AA
R5913	VRS-CZ1JF242JY	J	2.4k 1/16W Metal Oxide	AA
R5914	VRS-CZ1JF332DY	J	3.3k 1/16W Metal Oxide	AA
R6901	VRS-CZ1JF100JY	J	10 1/16W Metal Oxide	AA
R6902	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R7901	VRS-CZ1JF332JY	J	3.3k 1/16W Metal Oxide	AA
R7902	VRS-CZ1JF222JY	J	2.2k 1/16W Metal Oxide	AA
R8901	VRS-CZ1JF270DY	J	27 1/16W Metal Oxide	AA
R8902	VRS-CZ1JF473DY	J	47k 1/16W Metal Oxide	AA
R8903	VRS-CZ1JF103DY	J	10k 1/16W Metal Oxide	AA
R8904	VRS-CZ1JF103JY	J	10k 1/16W Metal Oxide	AA
R8905	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R8906	VRS-CZ1JF100JY	J	10 1/16W Metal Oxide	AA
R9902	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R9903	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R9904	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R9905	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R9906	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide	AA
R9907	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
BALUNES				
FB701	RBLN-0110TAZZY	J	Balun, BLN-0110TA	AB
FB702	RBLN-0110TAZZY	J	Balun, BLN-0110TA	AB
FB1601	RBLN-0081TAZZY	J	Balun, BLN-0081TA (CG40U)	AA
FB1602	RBLN-0081TAZZY	J	Balun, BLN-0081TA (CG40U)	AA
FB2901	RBLN-0119TAZZY	J	Balun, BLN-0119TA	AC
FB2902	RBLN-0119TAZZY	J	Balun, BLN-0119TA	AC
FB8901	RBLN-0102TAZZY	J	Balun, BLN-0102TA	AB
FB8902	RBLN-0102TAZZY	J	Balun, BLN-0102TA	AB
SWITCHES				
S201	QSW-MA001WJZZY	J	Switch, Card Door SW	AD
S204	QSW-K0031TAZZY	J	Switch, TELE	AC
S205	QSW-K0031TAZZY	J	Switch, WIDE	AC
MISCELLANEOUS PARTS				
⚠ F2901	QFS-LA008WJZZY	J	Fuse, 1.25A	AC
P1602	QPLGN0274TAZZY	J	Plug, 2Pin(CG40U)	AC
P2901	QPLGN0458REZZY	J	Plug, 4Pin	AD
P2902	QPLGN0463TAZZY	J	Plug, 4Pin	AC
SC201	QSOCZA035WJZZY	J	Socket, 12Pin	AK
SC202	QSOCN0825TAN1Y	J	Socket, 8Pin	AD
SC401	QSOCN1007REN1Y	J	Socket, 10Pin	AD
SC701	QSOCN1007REN1Y	J	Socket, 10Pin	AD
SC702	QSOCN1098TAZZY	J	Socket, 10Pin	AE
SC801	QSOCN1898TAZZY	J	Socket, 18Pin	AE
SC1001	QSOCN1672TAZZY	J	Socket, 16Pin	AD
SC1002	QSOCN0672TAZZY	J	Socket, 6PIn	AC
SC3001	QSOCN1507REN1Y	J	Socket, 15Pin	AD
TP1	QLUGZ0110TAZZY	J	Lug	AA
TP2	QLUGZ0110TAZZY	J	Lug	AA
TP3	QLUGZ0110TAZZY	J	Lug	AA
DUNTKB358PM00(VE-CG40U) DUNTKB358PM01(VE-CG30U) OPERATION PWB UNIT				
CAPACITORS				
C1701	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C1702	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C1703	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C1704	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C1705	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C1706	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
C1707	VCKYCZ1HB102KY	J	1000p 50V Ceramic	AB
RESISTORS				
R1701	VRS-TV1JD563JY	J	56k 1/16W Metal Oxide	AA
R1702	VRS-TV1JD563JY	J	56k 1/16W Metal Oxide	AA
R1703	VRS-TV1JD330JY	J	33 1/16W Metal Oxide	AA
R1704	VRS-TV1JD330JY	J	33 1/16W Metal Oxide	AA
R1705	VRS-TV1JD330JY	J	33 1/16W Metal Oxide	AA
R1706	VRS-TV1JD330JY	J	33 1/16W Metal Oxide	AA
R1707	VRS-TV1JD330JY	J	33 1/16W Metal Oxide	AA
R1708	VRS-TV1JD330JY	J	33 1/16W Metal Oxide	AA
R1709	VRS-TV1JD330JY	J	33 1/16W Metal Oxide	AA
R1710	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
R1711	VRS-CZ1JF000JY	J	0 1/16W Metal Oxide (CG40U)	AA
SWITCHES				
S1701	QSW-K0031TAZZY	J	Switch	AC
S1702	QSW-K0031TAZZY	J	Switch	AC
S1703	QSW-K0031TAZZY	J	Switch	AC
S1704	QSW-K0031TAZZY	J	Switch	AC
S1705	QSW-K0031TAZZY	J	Switch	AC
S1706	QSW-K0031TAZZY	J	Switch	AC
S1707	QSW-K0031TAZZY	J	Switch	AC
S1708	QSW-K0031TAZZY	J	Switch	AC
S1709	QSW-K0031TAZZY	J	Switch	AC
MISCELLANEOUS PARTS				
P1701	QPLGN0276TAZZY	J	Plug, 2Pin(CG40U)	AD
SC1701	QSOCN1025TAN1Y	J	Socket, 10Pin	AD
DUNTKB359PM00(VE-CG40U) DUNTKB359PM01(VE-CG30U) JACK PWB UNIT				
DIODE				
D4401	VHDDA221///-1Y	J	DA221	AB
COILS				
S4403	RCiLFA001WJZZY	J	Coil, CiLFA001WJ	AD
S4404	RCiLFA001WJZZY	J	Coil, CiLFA001WJ	AD
CAPACITORS				
C4401	VCCCCZ1HH101JY	J	100p 50V Ceramic	AB
C4402	VCCCCZ1HH101JY	J	100p 50V Ceramic	AB
C4403	VCKYCY1HB471KY	J	470p 50V Ceramic	AA

Ref. No.	Part No.	★	Description	Code

DUNTKB359PM00(VE-CG40U)
DUNTKB359PM01(VE-CG30U)
JACK PWB UNIT(Continued)

RESISTORS

R4401	VRS-CZ1JF000JY	J	0 (CG40U)	1/16W	Metal Oxide	AA
R4402	VRS-CZ1JF000JY	J	0	1/16W	Metal Oxide	AA
R4403	VRS-CZ1JF102JY	J	1k (CG40U)	1/16W	Metal Oxide	AA
R4404	VRS-CZ1JF000JY	J	0	1/16W	Metal Oxide	AA
R4405	VRS-CZ1JF102JY	J	1k	1/16W	Metal Oxide	AA
R4407	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R4408	VRS-CZ1JF000JY	J	0	1/16W	Metal Oxide	AA
R4409	VRS-CZ1JF103JY	J	10k	1/16W	Metal Oxide	AA
R4413	VRS-CZ1JF000JY	J	0 (CG30U)	1/16W	Metal Oxide	AA
R4415	VRS-CZ1JF222JY	J	2.2k	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

J4401	QJAKE0171CEZZ	J	Jack, DC In	AD
J4402	QJAKZ0078TAZZ	J	Jack, 4Pin	AD
J4403	QJAKE0060TAZZ	J	Jack, AV Out	AE
P4401	QPLGN0463TAZZY	J	Plug, 4Pin	AC
SC4401	QSOCN1072TAZZY	J	Socket, 10Pin	AB

DUNTKB360PM00
TOP-OPERATION PWB UNIT

RESISTORS

R7201	VRS-CZ1JF183JY	J	18k	1/16W	Metal Oxide	AA
R7202	VRS-CZ1JF183JY	J	18k	1/16W	Metal Oxide	AA
R7203	VRS-CZ1JF183JY	J	18k	1/16W	Metal Oxide	AA
R7204	VRS-CZ1JF183JY	J	18k	1/16W	Metal Oxide	AA
R7205	VRS-CZ1JF183JY	J	18k	1/16W	Metal Oxide	AA
R7206	VRS-CZ1JF183JY	J	18k	1/16W	Metal Oxide	AA
R7207	VRS-CZ1JF183JY	J	18k	1/16W	Metal Oxide	AA
R7208	VRS-CZ1JF183JY	J	18k	1/16W	Metal Oxide	AA

SWITCHES

S7202	QSW-RA003WJZZY	J	Switch, Mode Dial	AK
S7203	QSW-K0031TAZZY	J	Switch	AC
S7205	QSW-KA008WJZZY	J	Switch, Shutter SW	AD

MISCELLANEOUS PARTS

P7201	QPLGN0276TAZZY	J	Plug, 2Pin	AD
SC7201	QSOCN0871TAZZY	J	Socket, 8Pin	AC

DUNTKB514QA00
LCD PWB UNIT

INTEGRATED CIRCUITS

IC1801	VHiLRS57191-1Q	J	LRS57191	AV
IC1802	VHiBR93L46F-1Y	J	BR93L46F	AG

TRANSISTORS

Q1801	VSHN1B04FU/-1Y	J	HN1B04FU	AC
Q1802	VSHN1B04FU/-1Y	J	HN1B04FU	AC
Q1803	VSDTC114EE/-1Y	J	DTC114EE	AB

DIODES

D1801	VHDHVU17TRF-1Y	J	HVU17TRF	AE
D1802	RH-EX1239CEZZY	J	Zener, EX1239CE	AB

COILS

L1801	VPD9M100KR86NY	J	Peaking, 10μH	AC
L1802	VPAWM6R8J2R1NY	J	Peaking, 6.8μH	AC

CAPACITORS

C1801	VCKYCY0JB105KY	J	1	6.3V	Ceramic	AC
C1802	VCKYCY0JB105KY	J	1	6.3V	Ceramic	AC
C1803	VCKYCY0JB105KY	J	1	6.3V	Ceramic	AC
C1804	RC-KZ0072TAZZY	J	1	25V	Ceramic	AC
C1805	VCKYCZ1AF104ZY	J	0.1	10V	Ceramic	AB
C1806	VCSATA0YJ336MY	J	33	7V	Tantalum	AD
C1807	VCKYCZ1AF104ZY	J	0.1	10V	Ceramic	AB
C1808	VCKYCZ1CB103KY	J	0.01	16V	Ceramic	AB
C1809	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C1810	VCCCCZ1HH680JY	J	68p	50V	Ceramic	AB
C1811	VCKYCZ1HB102KY	J	1000p	50V	Ceramic	AB
C1813	VCKYCZ1EB682KY	J	6800p	25V	Ceramic	AB
C1814	VCKYCZ1CB103KY	J	0.01	16V	Ceramic	AB
C1815	VCSATA1AJ335MY	J	3.3	10V	Tantalum	AB
C1816	VCKYCZ1HF103ZY	J	0.01	50V	Ceramic	AB
C1817	VCSATA1EJ225MY	J	2.2	25V	Tantalum	AB
C1818	VCKYCZ1CB103KY	J	0.01	16V	Ceramic	AB
C1819	VCKYTV1CF684ZY	J	0.68	16V	Ceramic	AB
C1820	VCKYCY0JB105KY	J	1	6.3V	Ceramic	AC
C1821	RC-KZ0072TAZZY	J	1	25V	Ceramic	AC
C1822	VCKYCZ1CB103KY	J	0.01	16V	Ceramic	AB
C1823	VCKYCZ1CB103KY	J	0.01	16V	Ceramic	AB
C1824	VCKYCZ1CB103KY	J	0.01	16V	Ceramic	AB
C1825	VCKYCZ1HF103ZY	J	0.01	50V	Ceramic	AB
C1826	VCKYCZ1HF103ZY	J	0.01	50V	Ceramic	AB
C1827	VCSATA1EJ225MY	J	2.2	25V	Tantalum	AB

RESISTORS

R1801	VRS-CZ1JF100JY	J	10	1/16W	Metal Oxide	AA
R1802	VRS-CZ1JF100JY	J	10	1/16W	Metal Oxide	AA
R1803	VRS-CZ1JF100JY	J	10	1/16W	Metal Oxide	AA
R1804	VRS-CZ1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1805	VRS-CZ1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1806	VRS-CZ1JF1R0JY	J	1	1/16W	Metal Oxide	AA
R1807	VRS-CZ1JF1R0JY	J	1	1/16W	Metal Oxide	AA
R1809	VRS-CZ1JF100JY	J	10	1/16W	Metal Oxide	AA
R1810	VRS-CZ1JF101JY	J	100	1/16W	Metal Oxide	AA
R1812	VRS-CZ1JF104JY	J	100k	1/16W	Metal Oxide	AA
R1813	VRS-CZ1JF333DY	J	33k	1/16W	Metal Oxide	AA
R1814	VRS-CZ1JF153DY	J	15k	1/16W	Metal Oxide	AA
R1815	VRS-CZ1JF105JY	J	1M	1/16W	Metal Oxide	AA
R1816	VRS-CZ1JF000JY	J	0	1/16W	Metal Oxide	AA
R1817	VRS-CZ1JF000JY	J	0	1/16W	Metal Oxide	AA
R1818	VRS-CZ1JF333JY	J	33k	1/16W	Metal Oxide	AA
R1819	VRS-CZ1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1820	VRS-CZ1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1821	VRS-CZ1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1822	VRS-CZ1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1824	VRS-CZ1JF000JY	J	0	1/16W	Metal Oxide	AA
R1825	VRS-CZ1JF101JY	J	100	1/16W	Metal Oxide	AA
R1826	VRS-CZ1JF101JY	J	100	1/16W	Metal Oxide	AA
R1827	VRS-CZ1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1828	VRS-CZ1JF104JY	J	100k	1/16W	Metal Oxide	AA
R1830	VRS-CZ1JF243DY	J	24k	1/16W	Metal Oxide	AA
R1831	VRS-CZ1JF101JY	J	100	1/16W	Metal Oxide	AA
R1832	VRS-CZ1JF100JY	J	10	1/16W	Metal Oxide	AA
R1833	VRS-CZ1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1835	VRS-CZ1JF224JY	J	220k	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

SC1801	QSOCN2472TAZZY	J	Socket, 24Pin	AF
SC1802	QSOCN1872TAZZY	J	Socket, 18Pin	AD
SC1803	QSOCN0672TAZZY	J	Socket, 6Pin	AC

CABINET PARTS

Ref. No.	Part No.	★	Description	Code
1	DCABAA080WJK1	J	Front Cabinet Service (CG40U)	BB
1	DCABAA081WJK1	J	Front Cabinet Service (CG30U)	BB
1-2	GCABCA002WJKA	J	Inner Cabinet	AK
1-3	GCOVAA108WJSA	J	Grip	AE
1-4	GCOVAA109WJSA	J	Grip	AH
1-5	GCOVAA110WJSA	J	Cover	AC
1-6	GMADiA004WJZZ	J	J/F Window	AE
1-7	PCOVMA003WJZZ	J	Mic Sheet(CG40U)	AB
1-8	PSPAZA115WJZZ	J	Spacer	AB
1-9	PTPEHA007WJZZ	J	Tape	AB
2	DCABBA047WJK1	J	Rear Cabinet Service (CG40U)	AV
2	CCABBA051WJK1	J	Rear Cabinet Ass'y (CG30U)	AX
2-2	GCOVAA111WJSA	J	Jack Cover(CG40U)	AE
2-2	GCOVAA175WJSA	J	Jack Cover(CG30U)	AE
2-3	GCOVAA112WJSA	J	LED Cover	AC
2-4	GFTAAA001WJSA	J	Media Lid Cover	AG
2-5	JBTN-A043WJSA	J	Operation Button	AC
2-6	JBTN-A044WJSA	J	Transfer Button	AD
2-7	JBTN-A045WJSA	J	Zoom Button	AD
2-8	NSFTZA008WJFW	J	Shaft	AB
2-9	NSFTZA009WJFN	J	Strap Base	AD
2-10	PCOVPA011WJZZ	J	Cover(CG40U)	AB
2-11	PSPAZA056WJZZ	J	Spacer	AD
2-12	XREUW25-04000	J	E-Ring	AA
2-13	XWHJZ32-05080	J	Washer	AB
3	CCOVAA113WJK1	J	Top Cover Ass'y(CG40U)	AT
3	CCOVAA113WJK2	J	Top Cover Ass'y(CG30U)	AT
3-2	JBTN-A046WJSA	J	Shutter Button	AH
3-3	JBTN-A047WJSA	J	Power Button	AC
3-4	JKNBZA001WJSA	J	Mode Dial(CG30U)	AF
3-4	JKNBZA002WJSA	J	Mode Dial(CG40U)	AF
3-5	LHLDZA047WJZZ	J	Mode Dial Holder	AD
3-6	HDECAA002WJSA	J	Mode Dial Plate(CG30U)	AH
3-6	HDECAA004WJSA	J	Mode Dial Plate(CG40U)	AH
4	RMiCCA003WJZZ	J	Microphone(CG40U)	AK
5	QTANZA006WJZZ	J	Terminal, x2	AG
6	QTANZA007WJZZ	J	Terminal, x2	AF
7	LHLDZA046WJZZ	J	Battery Terminal Holder	AF
8	GCABDA004WJKA	J	Lower Cabinet	AL
9	LHLDZ3041TAZZ	J	Tripod Base	AE
10	RUNTKA028WJZZ	J	Unit	AF
11	MSPRPA004WJFN	J	Battery Terminal	AD
12	JKNBPA006WJSA	J	Battery Lid Lock	AD
13	GFTABA003WJSA	J	Battery Lid Cover	AG
14	LANGKA039WJFW	J	PWB Fixing Metal	AH
15	LANGKA043WJFW	J	Speaker Fixing Metal (CG40U)	AC
16	VSPA016P-F18N	J	Speaker(CG40U)	AN
19	DUNTKB514QA00	J	LCD PWB Unit	BB
20	RLCUCA002WJZZ	J	LCD Panel	BG
21	LANGKA044WJFW	J	LCD Fixing Metal	AG
22	DUNTKB356QA00	J	Main PWB Unit(CG40U)	CC
22	DUNTKB357QA00	J	Main PWB Unit(CG30U)	CB
23	DUNTKB358PM00	J	Operation PWB Unit (CG40U)	AM
23	DUNTKB358PM01	J	Operation PWB Unit (CG30U)	AN
24	DUNTKB359PM00	J	Jack PWB Unit(CG40U)	AS
24	DUNTKB359PM01	J	Jack PWB Unit(CG30U)	AR
25	DUNTKB360PM00	J	Top-Operation PWB Unit	AR
26	GMADiA005WJSA	J	LCD Window	AH
27	JBTN-A048WJSA	J	Cursur Key Button	AF
28	KLMPWA002WJZZ	J	Strobe	BA
29	MSPRPA006WJFJ	J	Cursur Key Spring	AC
30	PSPAZA116WJZZ	J	Spacer	AB
31	PSPAZA117WJZZ	J	Spacer	AB
32	TLABMA108WJZZ	J	Model Label(CG40U)	AC
32	TLABMA109WJZZ	J	Model Label(CG30U)	AC
33	QCNW-A563WJZZ	J	FFC <OPE - MAIN>	AC
34	QCNW-A566WJZZ	J	FFC <LCD - MAIN>	AC
35	QCNW-A564WJZZ	J	FFC <STROBE - MAIN>	AC
36	QCNW-A562WJZZ	J	FFC <JACK-MAIN>	AC
37	QCNW-A561WJZZ	J	FFC <TOP-MAIN>	AB
38	QCNW-A565WJZZ	J	Wire <JACK - MAIN>	AD
39	PSLDMA025WJFW		ASIC Shield	AD
40	PSLDMA026WJFW		CCD Shield	AD
41	PSLDMA098WJZZ		Emi Sheet	AD
42	PMLT-A052WJZZ		Gasket	AD
43	PMLT-A048WJZZ		Gasket(CG40U)	AC
a	LX-HZ0063TAFF	J	Screw, x11	AA
b	LX-HZ0050TAFF	J	Screw, x15	AA
c	LX-AZA001WJFF	J	Screw, x2	AA
d	LX-BZ0210TAFF	J	Screw, x2	AA
e	LX-HZA006WJFN	J	Screw, x4	AA
f	XiPSF17P03000	J	Screw, x16	AA
g	XiPSN17P02000	J	Screw, x2	AA
h	XiPSF17P04000	J	Screw, x2	AA

SUPPLIED ACCESSORIES

⚠	UADP-A013WJZZ	J	AC Adaptor	AY
⚠	QCNWGA016WJZZ	J	AV Cable(CG40U)	AH
⚠	QCNWGA017WJZZ	J	Video Cable(CG30U)	AH
	CDSKA0082TA01	J	SD Card	BF
	CDSKAA008WJ01	J	CD-ROM	AH
	GCOVAA115WJSA	J	Lens Cap	AF
	QCNWGA018WJPZ	J	USB Cable	AL
	TCADNA001WJZZ	J	Card	AD
	TiNSEA013WJZZ	J	Operation Manual(CG40U)	AL
	TiNSEA023WJZZ	J	Operation Manual(CG30U)	AM
	TiNSEA034WJZZ	J	Operation Manual	AG
	TLABK0035TAZZ	J	Label	AA
	TLABZ0540TAZZ	J	Label	AA
	UBNDTA003WJZZ	J	Wrist Strap	AF

ACCESSORIES
(NOT REPLACEMENT ITEM)

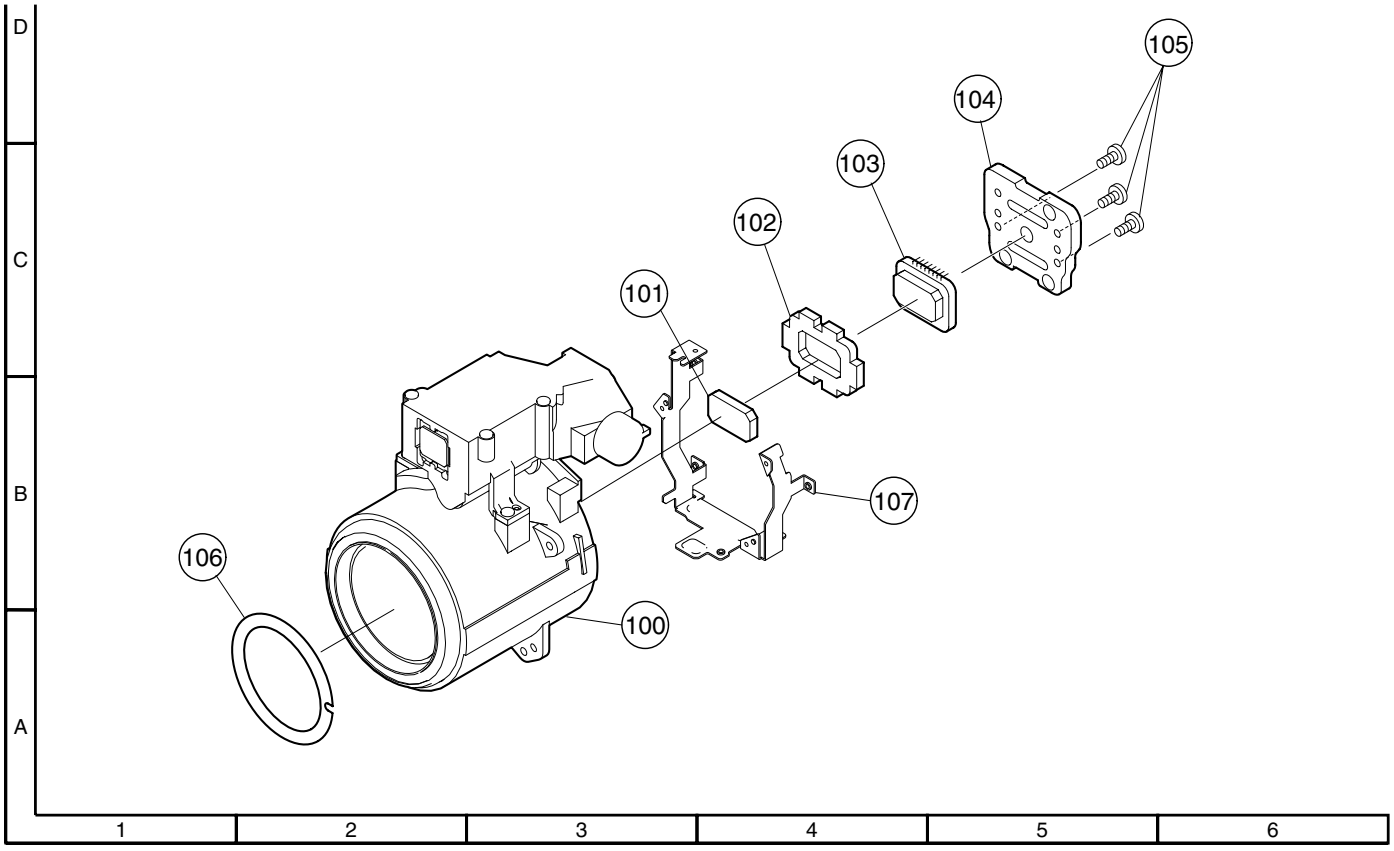
TLABK0001TAZZ	No. Card Label	—

PACKING PARTS
(NOT REPLACEMENT ITEM)

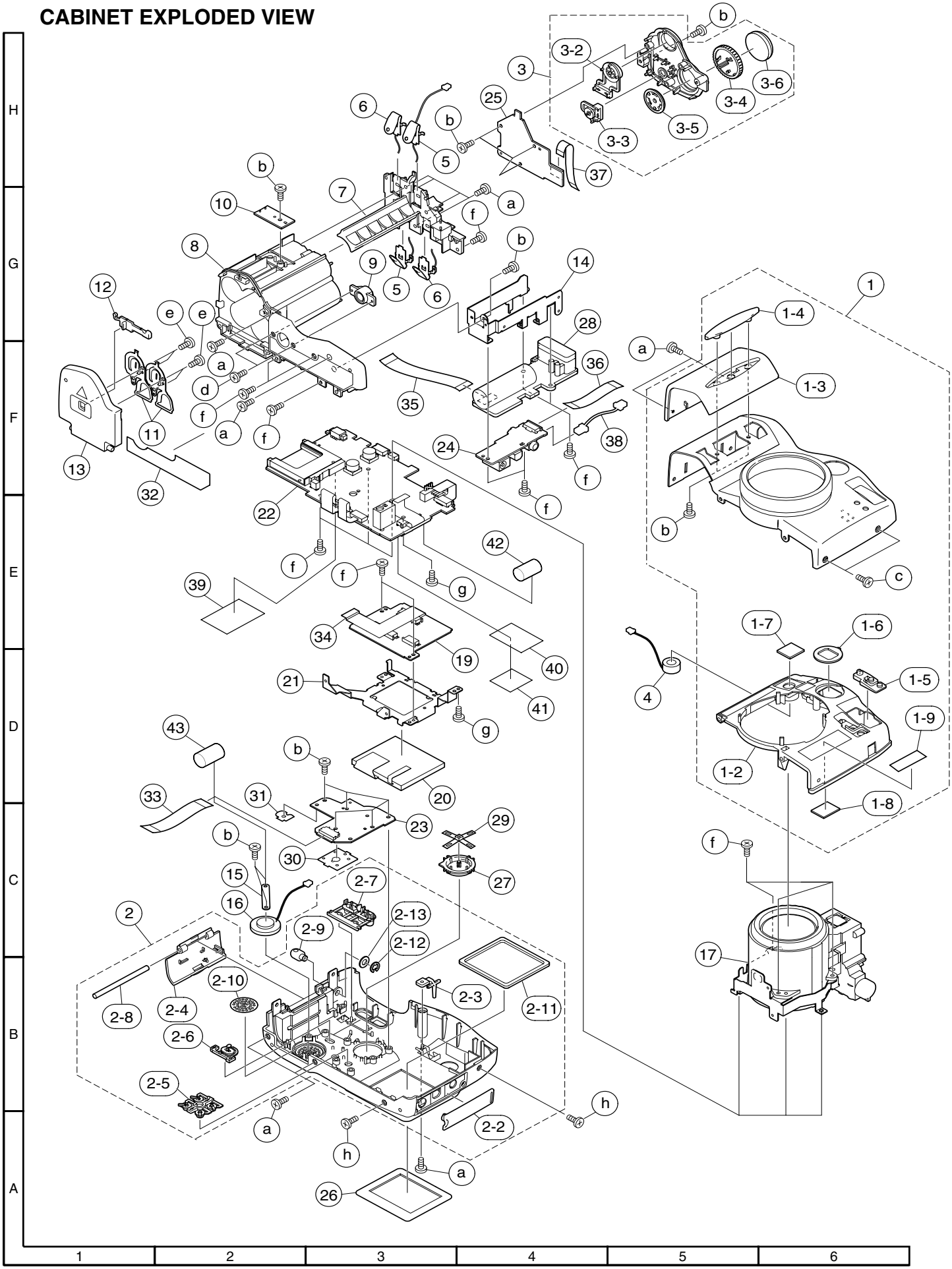
SPAKAA052WJZZ	Packing Add.	—
SPAKAA053WJZZ	Packing Add.	—
SPAKCA151WJZZ	Packing Case(CG40U)	—
SPAKCA152WJZZ	Packing Case(CG30U)	—
SPAKPA050WJZZ	Wrapping Paper	—
SSAKA0087TAZZ	Polyethylene Bag	—

Ref. No.	Part No.	★	Description	Code
			CAMERA UNIT PARTS	
100	PLNSAA004WJN1	J	Lens	BX
101	PFiLWA025WJZZ	J	Filter, FiLWA025WJ (CG40U)	AW
101	PFiLWA026WJZZ	J	Filter, FiLWA026WJ (CG30U)	AS
102	PCOVMA002WJ00	J	Dust Protection Rubber	AC
103	VHLRJ21P3BA-1	J	3M CCD(CG30U)	BK
103	VHLRJ21R3BA-1	J	4M CCD(CG40U)	BK
104	LANGKA035WJFW	J	LCD Plate	AD
105	LX-HZ0013TAFF	J	Screw, x3	AA
106	HDECPA003WJSA	J	Lens nameplate	AD
107	LANGKA038WJFW	J	Lens Fixing Metal	AK

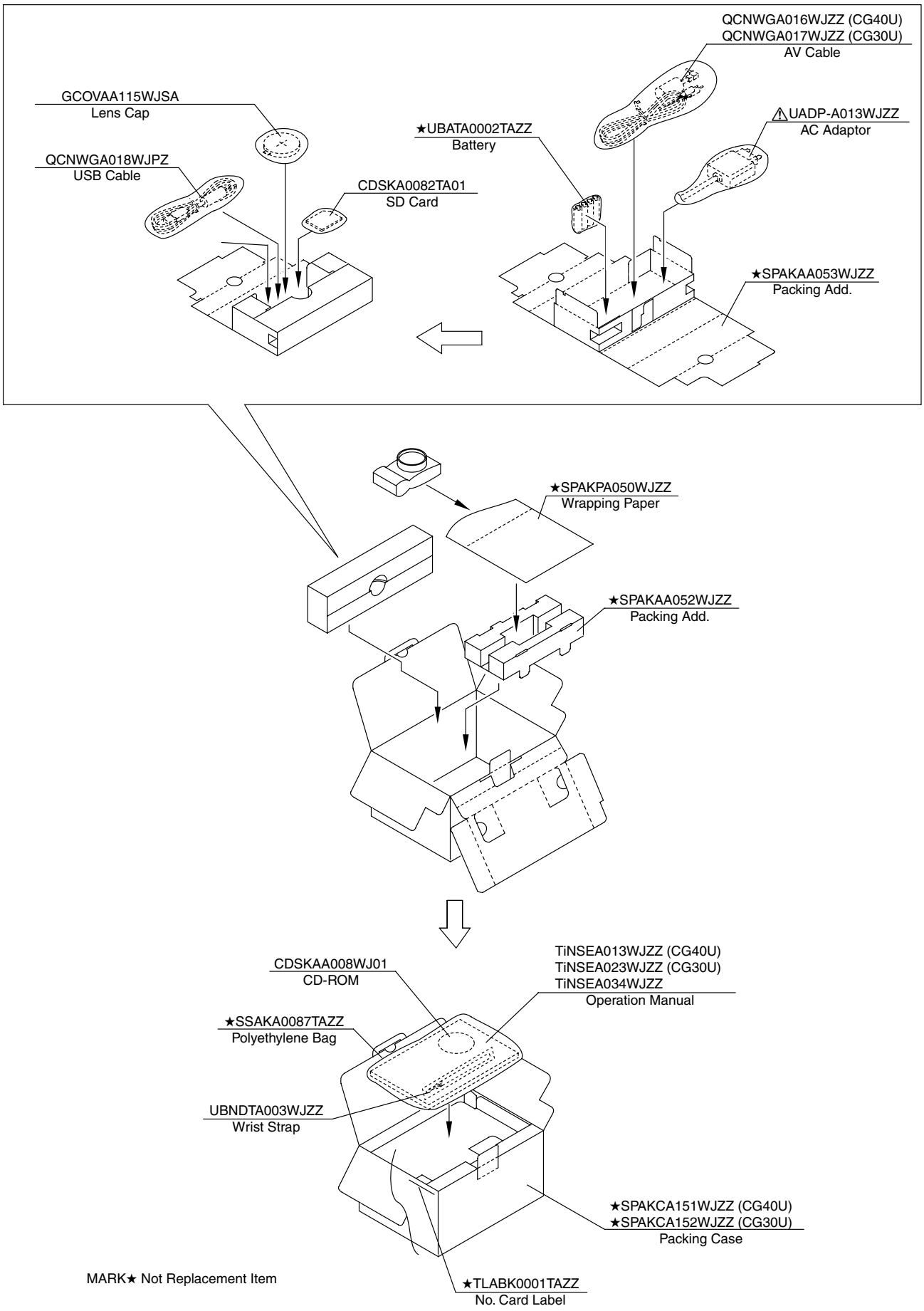
CAMERA UNIT EXPLODED VIEW



CABINET EXPLODED VIEW



12. PACKING OF THE SET



MARK★ Not Replacement Item

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